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CONE LIST

Veneer Recovery from Old-growth Coast Douglas-fir

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ABSTRACT

Veneer grade and cubic volume recovery values are reported for 10 combined studies made at Washington, Oregon, and California plywood mills. Grade yield on over 3,000 peeler blocks and approximately 2 million square feet of veneer, 3/8-inch basis, was tallied. Grades A and B veneer accounted for 30.4 percent of the recovery from all blocks; grade C, 26.5 percent; and grade D, 43.1 percent. A total of 52.67 percent of the total, cubic-block volume was recovered as dry, untrimmed veneer. Average recovery ratio was 2.71 based on net block scale and dry, untrimmed veneer recovery.

KEYWORDS: Veneers (recovery), Douglas-fir, forest products.

ACKNOWLEDGMENTS

CONTENTS

INTRODUCTION

Douglas-fir sawtimber west of the Cascade Range in Washington and Oregon and west of the Sierras in northern California constitutes one of the most important raw material resources in the United States.[1] The volume of commercial Coast Douglas-fir sawtimber is estimated to be in excess of 394 billion board feet-- about 10 billion board feet is harvested annually. This is about 55 percent of the total softwood lumber production in the United States. Nearly 4 billion board feet of Coast Douglas-fir logs are used for plywood--about 63 percent of the United States annual production of softwood plywood.

The stumpage value of Coast Douglas-fir lumber and veneer logs produced in 1962 was estimated to be more than $460 million. An estimated $840 million in value was added to these logs by logging, and about $745 million more by primary manufacturing.

There is an urgent need for better methods of appraising the quality of this important timber resource. Estimates of the recovery that can be obtained from Coast Douglas-fir sawtimber are needed by forest land managers, timber buyers, and timber processors for efficient utilization of the resource for lumber, veneer, pulp, or other use.

The Pacific Northwest Forest and Range Experiment Station in cooperation with other public agencies and the forest products industry has made an extensive study of Coast Douglas-fir. A series of recovery studies obtained yields of lumber and veneer from more than 1,000 Douglas-fir trees selected from typical commercial sawtimber stands throughout the west-side Douglas-fir region.

This report presents the veneer yield information from these studies according to current log grading, scaling, and processing practices. Recovery information is reported for the combined sample of logs cut from the old-growth trees. Here, old growth refers to timber stands over 100 years old. This distinction between old growth and young growth reflects the approximate harvest rotation age.

Forest managers, timber buyers, and forest products plant managers will find this report useful in estimating veneer recovery information.

Other reports will cover different phases of this study. The lumber recovery information is presented in a similar report (Lane et al. 1973a). New cruising log grades for Coast Douglas-fir, developed by studying the surface quality characteristics and yields of the sample trees, are described in a separate report (Lane et al. 1973b). Veneer volume losses in plywood production can be estimated from other Pacific Northwest Forest and Range Experiment Station reports (Hunt and Woodfin 1970, Woodfin 1973).

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[1] Botanically considered to be the coast variety of Douglas-fir, *Pseudotsuga menziesii* (Mirb.) Franco var. *menziesii*.

STUDY PROCEDURES

SAMPLING

The study trees were selected from about 100 sample areas throughout the range of Douglas-fir in California, Oregon, and Washington. Saw logs and veneer blocks were processed at 10 mills as shown in figure 1. About one-third of the trees selected in each sample area were designated for veneer processing. The remainder were sawn to obtain lumber

Figure 1.--*Approximate location of the timber sample areas (●) and study veneer plants (◉).*

recovery information. The "veneer" trees were randomly selected from pairs of trees whose physical characteristics matched as nearly as possible. One of these trees was included in the veneer study and one in the lumber recovery study. The tree pairs were selected to represent the range of tree size and quality in west-side Douglas-fir commercial sawtimber. The sample areas were located to provide the desired stratification of the main environmental factors of forest type, stand density, elevation, and aspect. Within each area, individual trees were selected on the basis of tree size and log quality.

The study trees were felled and bucked into long logs, following log production practices as similar as possible to those of each cooperating mill. Trees designated as veneer trees were bucked into nominal 8-foot peeler blocks. The blocks from the entire tree were usually sent to the veneer mill. Two requirements for blocks sent to the veneer mill were diameters large enough (about 10 inches) and blocks sound enough to hold in lathe chucks. Each log was tagged in the woods to identify its origin by sample area, tree number, and position in the tree.

The log samples processed at each mill and the combined sample represented the timber size and quality available over the extensive range of Coast Douglas-fir in California, Oregon, and Washington. They were not intended to be representative of the typical log mix at a mill.

LOG DIAGRAMING, SCALING, AND GRADING

Visible log surface and log end characteristics of each peeler block and saw log were recorded in a data collection

procedure called log diagraming--identifying and recording the size and location of all surface features such as scars and knots. Diagrams provide the basis for log and tree grade development and analysis. From these records, log and tree grading systems can be tested and developed.

Study logs were graded in accordance with practices used in the west-side Douglas-fir region. Each woods-length log was scaled and graded according to Forest Service instructions for west-side log scaling and grading (USDA Forest Service 1965). These rules are a modified version of Bureau rules.[2/] A summary of the log grading specifications is in Appendix C. The grades were also applied to the peeler blocks.

The logs were rescaled as blocks after they were bucked for peeling. This

scale was based on Bureau of Land Management rules (U.S. Department of the Interior, Bureau of Land Management 1970).

Scaling and grading practices are referred to in this report as the "woods-length scale" and the "block scale." Scale volumes are based on the Scribner Decimal C Rule. Both the scales and grades were determined by public agency check scalers or scaling supervisors.

The distribution of woods-length logs by number of 8-foot peeler blocks per log is shown in table 1. Lengths varied from one to five peeler blocks per woods-length log with four-block logs being the most common length. Figures 2 and 3 indicate the relative distribution of woods-length logs and peeler blocks, respectively, among the seven Bureau log grades. There is a noticeable difference in the relative amounts based on a comparison of number of logs or net scale volume. Appendix A tables 6 to 12 show the distribution of the woods-length logs by scaling diameter and log grade. These indicate the general nature of the old-growth timber stands sampled. The comparable tables for peeler blocks are in Appendix B, tables 27 to 33.

[2/] Rules used by the Columbia River, Puget Sound, Grays Harbor, Southern Oregon, and Northern California Log Scaling and Grading Bureaus depending upon location.

Table 1.–Distribution of woods-length logs by log grade and number of veneer blocks

Veneer blocks per log	Log grade					
	Number 1 Peeler	Number 2 Peeler	Number 3 Peeler	Special Peeler	Number 2 Sawmill	Number 3 Sawmill
	- - - - - - - - - - - - - - - Number of blocks - - - - - - - - - - - - - - - -					
1	0	0	2	0	11	21
2	14	2	17	3	59	56
3	5	9	30	9	114	39
4	9	16	76	53	288	63
5	0	0	0	1	10	6
Total	28	27	125	66	482	185
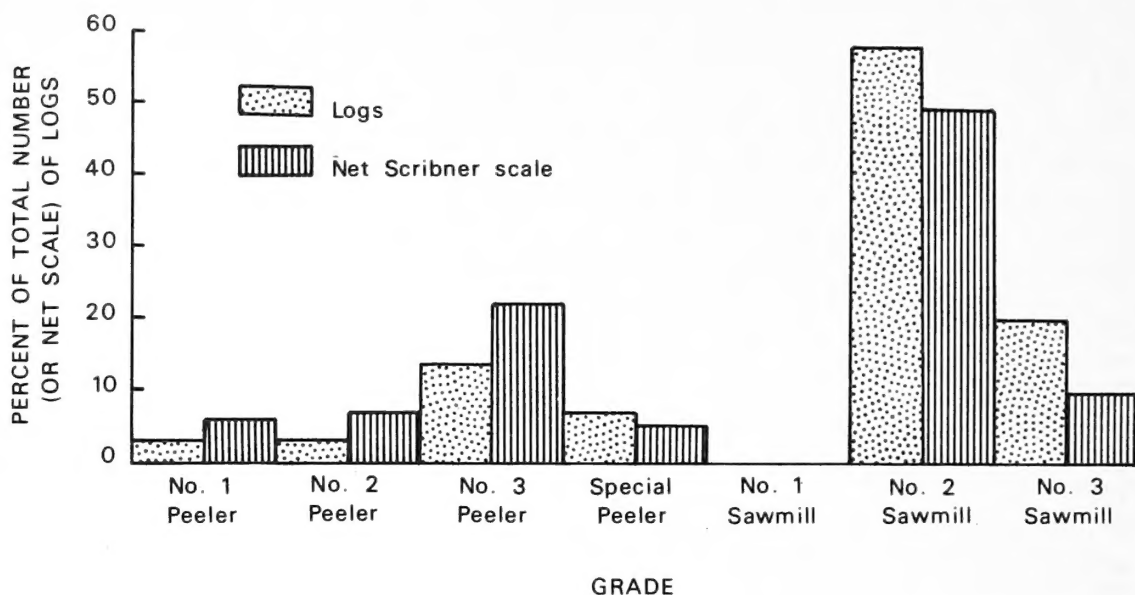
Figure 2.--*Distribution of woods-length logs by number of logs and net scale for each log grade.*
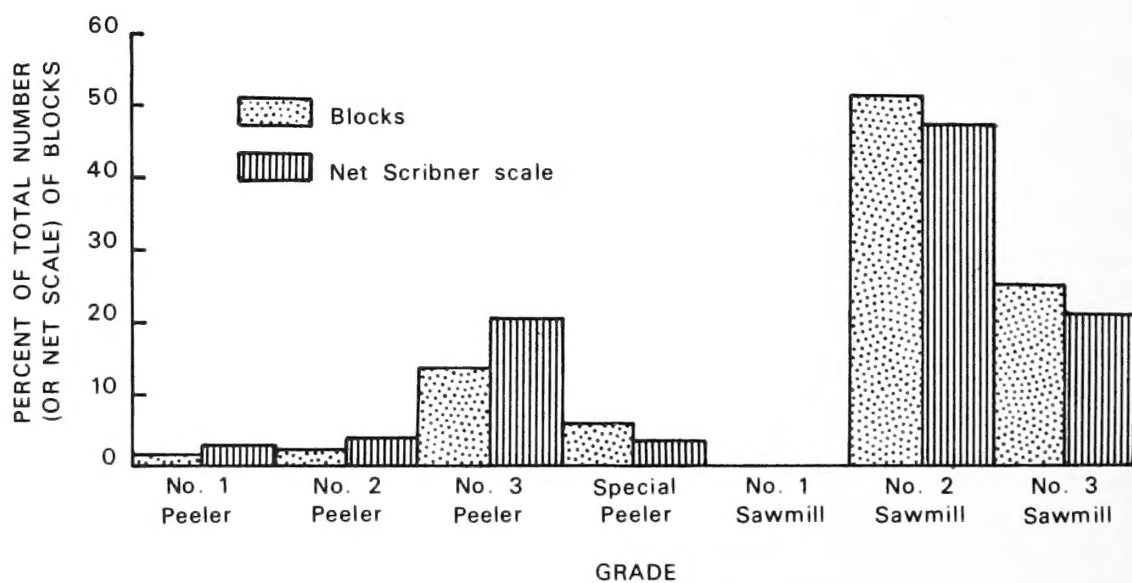
Figure 3.--*Distribution of veneer blocks by number of blocks and net scale for each log grade.*

VENEER PEELING
AND TALLYING

The study logs were peeled under normal production conditions. The equipment, manufacturing methods, and product output were representative of general industry practice in the west-side Douglas-fir region. Mill production equipment generally included an 8-foot lathe with retractable lathe chucks, core saw, clippers, one to three veneer dryers, and associated panel layup equipment.

Blocks were peeled and veneer was clipped to recover the optimum value of each log within the cooperating mills' normal manufacturing procedures for producing standard veneer items. Log identity (Lane 1971) was maintained on each piece of veneer throughout the manufacturing process to the final point of grading and tallying. The veneer was graded by, or under the direct supervision of, quality supervisors of the American Plywood Association or Timber Engineering Company. All study veneer was graded under Product Standard 1-66 (American Plywood Association 1966). Veneer pulled for company use but not meeting grade standards was tallied as below-grade veneer. This volume is shown separately in the grade recovery tables.

All square-foot veneer volumes in this report are on the 3/8-inch industry basis.

The amount of dry veneer recovered from a peeled block was determined from the number of color coded full and half sheets. The width of each piece of dry 8-foot random strip and 4-foot fishtail core veneer was measured to the nearest inch for every block. These measurements were compiled for peeler blocks and converted to cubic- and square-foot volumes using an average dry veneer width and thickness determined for each mill. The random width strips, half and full sheet volumes, were likewise combined to give the dry veneer recovery of each block. The computer program details are described in a report by Woodfin and Mei (1967).

COMPILATION OF DATA

Woods-length log veneer yields on a square-foot, 3/8-inch basis, were compiled from the dry, untrimmed veneer tally information obtained for the peeled blocks. Cubic volumes of the blocks, veneer, core, below grade veneer, and residue were each calculated. Individual peeler blocks were summed to provide woods-length log cubic volume. The gross cubic volume was computed by the following formula:

$$\text{Gross cubic volume} = \frac{\pi \, L (D_S^2 + D_S D_1 + D_1^2)}{12}$$

where

π is the constant pi

D_S is the block average diameter, small end

D_1 is the block average diameter, large end

L is the actual block length.

Residue volume was obtained by subtracting the veneer, core, and below grade veneer volumes from the gross block volume. The residue total includes spur, roundup loss, and green clipper losses.

The veneer grade yield for the woods-length logs was obtained by combining the veneer recovery from the blocks of each log.

RESULTS

The 913 woods-length logs produced 2,000,780 square feet of veneer, 3/8-inch basis. A summary of the log scale and cubic volumes of these logs for each log grade is presented in table 2. Detailed volumes by log grade and diameter are presented in Appendix A, tables 6 to 12.

The 3,042 veneer blocks produced 1,993,254 square feet, 3/8-inch basis, of veneer. A summary of log scale and cubic volumes is presented in table 3. Detailed volumes by log grade and diameter are presented in Appendix B, tables 27 to 33.

The difference in veneer volume between the woods-length logs and blocks

is due to any cull (less than one-third sound) veneer blocks in a woods-length log that were peeled, produced some veneer, and therefore, were included with the adjacent blocks from the original long log. However, these cull blocks along with the small amount of veneer they produced are not reported in the individual block data with the blocks that were over one-third sound.

SCALING DEFECTS

All logs in this report are at least one-third sound as determined by the scaler. Figure 4 presents the relationship of defect percentage to log and block diameter for all grades combined.

Table 2.-Total log scale, veneer tally, and cubic volumes of woods-length logs by log grade

Log grade	Number of logs	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		- - Board feet - -		Square feet		- - - Cubic feet - - -		Percent	- - - - - - Cubic feet - - - - - -
No. 1 Peeler	28	48,100	41,500	123,861	2.98	6,601.83	3,800.22	57.56	66.91	445.13	2,289.57
No. 2 Peeler	27	56,330	49,220	152,185	3.09	7,991.20	4,635.41	58.01	135.08	539.28	2,681.43
No. 3 Peeler	125	175,480	153,560	470,592	3.06	24,795.23	14,550.10	58.68	449.19	1,908.87	7,887.07
Special Peeler	66	40,010	37,820	122,964	3.25	6,386.97	3,775.61	59.11	57.77	700.00	1,853.59
No. 2 Sawmill	482	382,800	335,600	970,389	2.89	57,482.11	30,051.12	52.28	3,920.65	5,743.44	17,766.90
No. 3 Sawmill	185	84,040	65,530	160,789	2.45	14,390.13	4,977.59	34.59	1,983.86	1,847.70	5,580.98
All grades	913	786,760	683,230	2,000,780	2.93	117,647.47	61,790.05	52.52	6,613.46	11,184.42	38,059.54

Table 3.-Total log scale, veneer tally, and cubic volumes of veneer blocks by block grade

Block grade	Number of blocks	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		- - Board feet - -		Square feet		- - - Cubic feet - - -		Percent	- - - - - - Cubic feet - - - - - -
No. 1 Peeler	49	29,480	23,820	71,826	3.02	4,076.94	2,228.01	54.65	40.57	328.14	1,480.22
No. 2 Peeler	64	35,290	30,100	91,023	3.02	4,897.67	2,815.62	57.49	18.22	341.18	1,722.65
No. 3 Peeler	416	175,700	151,410	457,707	3.02	24,528.23	14,092.90	57.46	277.67	1,916.13	8,241.53
Special Peeler	180	26,960	26,150	76,150	2.91	4,061.02	2,335.48	57.51	28.59	527.17	1,169.78
No. 2 Sawmill	1,563	385,240	349,020	977,276	2.80	54,144.32	30,121.78	55.63	2,641.55	5,299.09	16,081.90
No. 3 Sawmill	770	175,970	153,720	319,272	2.08	25,138.16	9,944.57	39.56	3,520.69	2,687.50	8,985.40
All grades	3,042	828,640	734,220	1,993,254	2.71	116,846.34	61,538.36	52.67	6,527.29	11,099.21	37,681.48
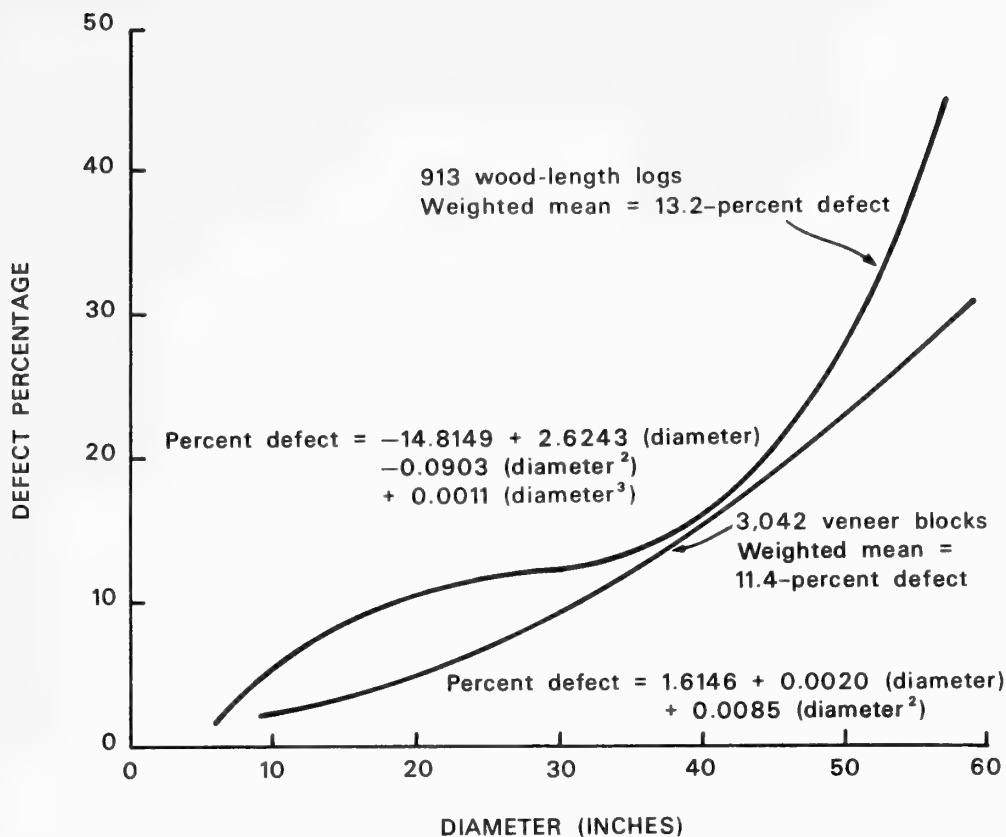
Figure 4.--*Relationship of percent defect to diameter for woods-length logs and veneer blocks.*

Average scaling defect percentage was 13.2 and 11.4, respectively, for woods-length logs and peeler blocks. Defect percentage was highest for No. 3 Sawmill grade of the woods-length logs and for No. 1 Peeler grade of the individual blocks.

VENEER RECOVERY RATIO

The range in veneer recovery volumes and ratios[3] can be compared by log

[3] The reader should note that veneer recovery ratio is based on the net Scribner board-foot scale of the log or block and the volume in square feet, 3/8-inch basis, of dry, *untrimmed veneer* produced from the log or block. The plywood industry normally expresses recovery ratio based on the *trimmed panel* basis. A further reduction of 16 percent of untrimmed (Hunt and Woodfin 1970) will approximate the trimmed basis.

grade and diameter class using Appendix A, tables 13 to 19, and Appendix B, tables 34 to 40. Also, figure 5 shows the relationship of the recovery ratios to scaling diameter for all log grades combined. The prediction equations developed by regression analysis are shown with the curves.

CUBIC RECOVERY PERCENTAGE

The relationship of the cubic recovery ratio to block and log scaling diameter for all data combined is shown in figure 6. Figure 7 shows the number of square feet of veneer (3/8-inch basis) that are produced per cubic foot of log or block volume. There is no significant difference between the curves for block and woods-length logs. A mill having a cubic estimate of log input would use figure 6 to estimate recovery volume.

7
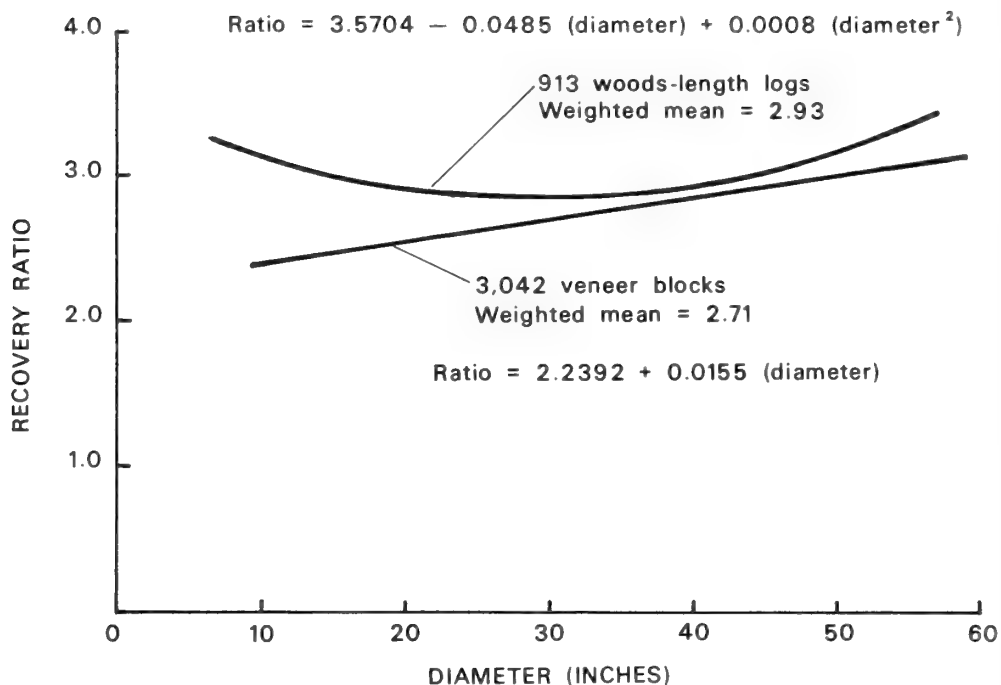
Figure 5.--*Relationship of dry, untrimmed veneer recovery ratio to woods-length log and veneer block diameter.*
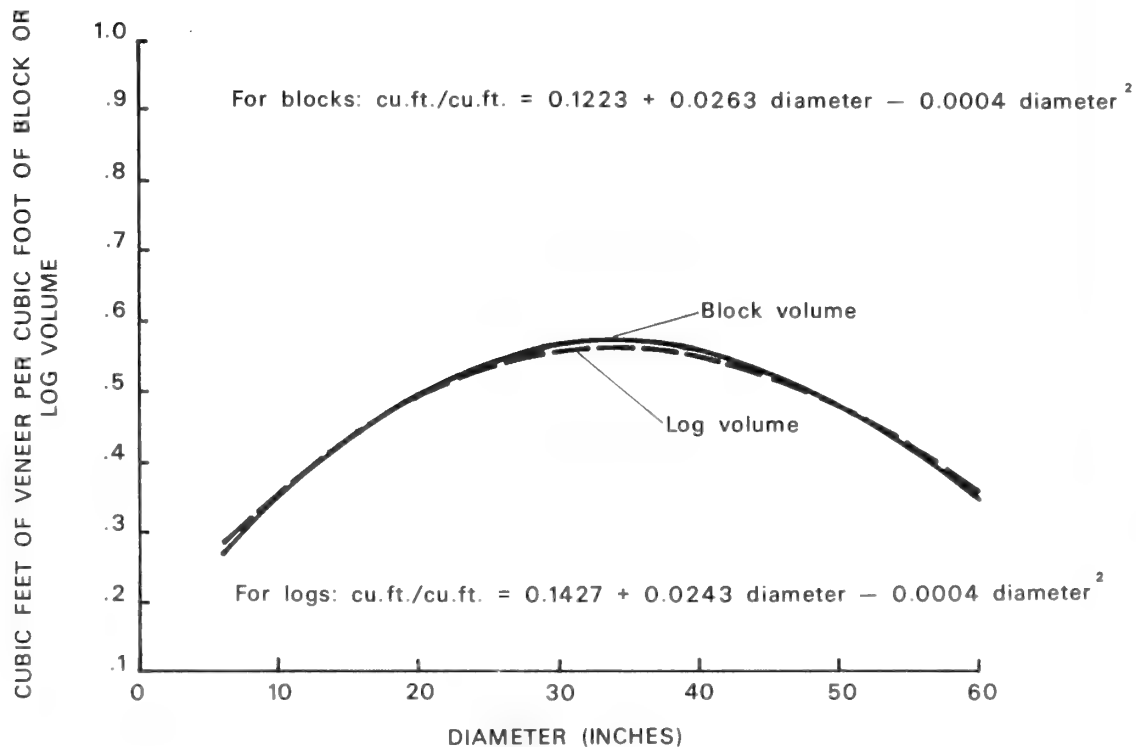
Figure 6.--*The relationship of cubic veneer volume to cubic block and log volumes.*

8

For blocks: sq.ft./cu.ft. = 4.1060 + 0.8543 diameter − 0.0124 diameter^2

For logs: sq.ft./cu.ft. = 5.1962 + 0.7590 − 0.011 diameter^2
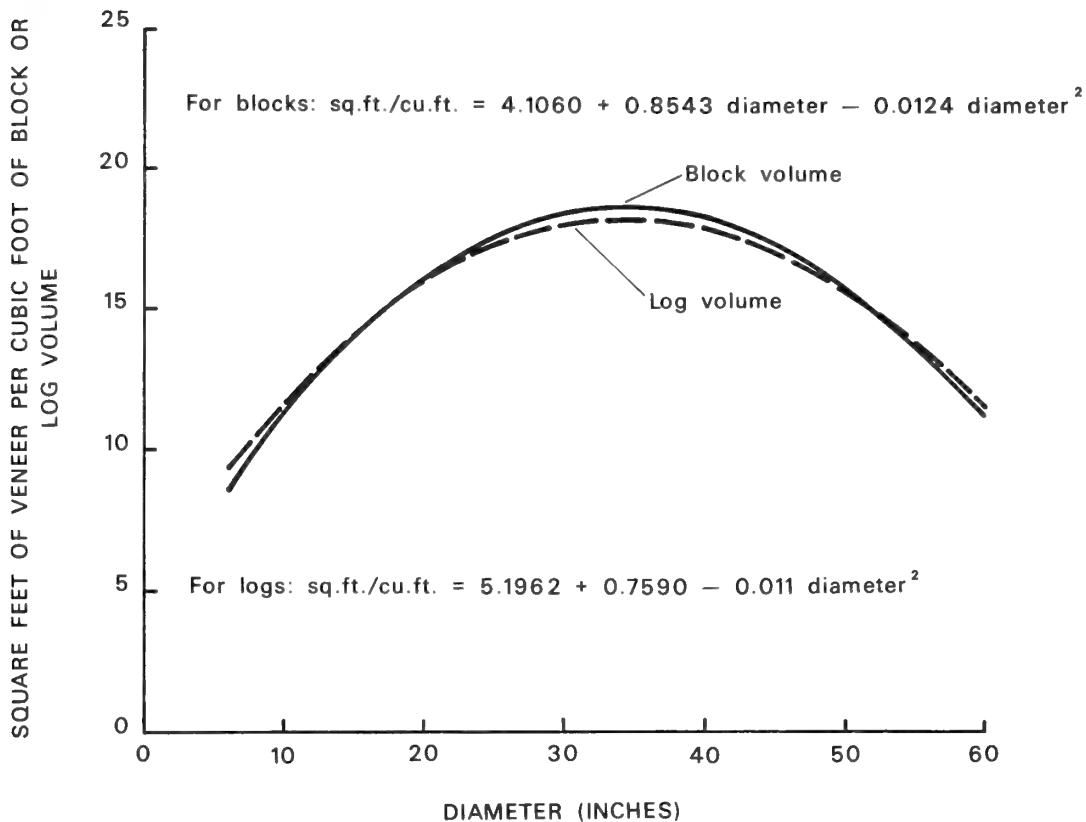
Figure 7.--*The relationship of square-foot volume (3/8-inch basis) to cubic block and log volumes.*

The following example illustrates use of the data to estimate total production of dry, untrimmed veneer on a 3/8-inch basis:

Assume the daily veneer block input to a mill is sorted into two diameter classes without regard to grade. Any number of sortings by size and grade could be used and the method of calculation would not change. Further, it is known that size class 1 of 300 blocks has an average diameter of 15 inches. Next, determine from Appendix B, table 33, that the average cubic volume per 15-inch block is 17.2 cubic feet (2,274.46 cubic feet ÷ 132 blocks). From figure 7, note that the 15-inch blocks yielded 14.1 square feet of veneer, 3/8-inch basis, per cubic foot of block volume.

Three hundred blocks times 17.2 cubic feet per block = 5,160 cubic feet; this volume times the 14.1 square feet per cubic foot = an estimated yield of 72,756 square feet of dry, untrimmed veneer, 3/8-inch basis, from the blocks.

Size class 2 of 75 blocks has an average diameter of 45 inches. From Appendix B, table 33, the average cubic volume per 45-inch block was calculated to be 101.2 cubic feet (1,518.55 cubic feet ÷ 15 blocks). The 45-inch blocks in figure 7 yielded 16.1 square feet of veneer, 3/8-inch basis, per cubic foot of volume.

9

Seventy-five blocks times 101.2 cubic feet per block = 7,590 cubic feet; this volume times the 16.1 square feet per cubic feet = an estimated yield of 122,199 square feet of dry, untrimmed veneer, 3/8-inch basis, from the blocks.

Therefore, the mill's estimated veneer production from the 375 blocks is 122,199 + 72,756 = 194,955 cubic feet, 3/8-inch basis, of dry, untrimmed veneer (see footnote 3).

VENEER GRADE RECOVERY

The most useful information from a veneer recovery study usually is the volume of each veneer grade produced from logs of various diameter classes.

Tables 4 and 5 contain the average veneer recovery percentages by each log grade for logs and blocks. No. 1 Peeler woods-length logs produced 24.0 percent A and A patch veneer and 13.6 percent D veneer (Appendix A, table 13). At the low end of the log grades, logs averaged 4.8 percent A and A patch but 75.9 percent D veneer (No. 3 Sawmill, Appendix A, table 18).

Comparable values for No. 1 Peeler veneer blocks (Appendix B, table 34) are 18.5 percent A and A patch and 13.8 percent D veneer. No. 3 Sawmill blocks (Appendix B, table 39) recovered 6.1 percent A and A patch and 73.0 percent D veneer. A more detailed description of veneer grade recovery by log grade

Table 4.–Average veneer recovery from woods-length logs by log grade

Log grade	Number of logs	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	- - - - - - - - - - - - - *Percent* - - - - - - - - - - - - -
No. 1 Peeler	28	123,861	5.3	18.7	8.4	18.6	35.4	13.6
No. 2 Peeler	27	152,185	7.3	18.9	8.8	13.9	31.5	19.6
No. 3 Peeler	125	470,592	5.1	16.4	5.9	15.8	29.1	27.7
Special Peeler	66	122,965	1.3	9.9	3.3	13.2	49.6	22.7
No. 2 Sawmill	482	970,389	2.6	6.3	3.1	10.2	22.4	55.4
No. 3 Sawmill	185	160,789	2.2	2.6	1.9	3.8	13.6	75.9
All grades	913	2,000,780	3.6	10.3	4.4	12.0	26.5	43.2

Table 5.–Average veneer recovery from veneer blocks by block grade

Block grade	Number of blocks	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	- - - - - - - - - - - - - *Percent* - - - - - - - - - - - - -
No. 1 Peeler	49	71,826	4.5	14.0	8.6	20.9	38.2	13.8
No. 2 Peeler	64	91,023	7.1	18.1	8.5	15.3	35.1	14.9
No. 3 Peeler	416	457,707	6.8	16.1	7.1	15.2	34.1	20.7
Special Peeler	180	76,150	1.5	10.4	3.7	14.7	52.7	17.0
No. 2 Sawmill	1,563	977,276	2.4	8.7	3.2	11.3	23.6	50.8
No. 3 Sawmill	770	319,272	1.9	4.2	2.1	5.8	13.0	73.0
All grades	3,042	1,993,254	3.6	10.4	4.4	12.0	26.5	43.1

and diameter classes is shown in Appendix A, tables 13 to 19, for woods-length logs, and in Appendix B, tables 34 to 40, for veneer blocks.

Figures 8 and 9 show the veneer grade recovery percentages over diameter as curved by regression analysis for woods-length logs and individual blocks. A separate graph is presented for each log grade. The set of curves on a graph will total 100 percent for each log diameter. For example, the 25-inch, No. 3 Peeler grade logs had the following curved veneer recovery percentages as developed from figure 8. A = 2.5, A patch = 12.8, B = 3.8, B patch = 15.5, C = 44.9, and D = 20.5. Note the uncurved actual values for the seven 25-inch logs in Appendix A, table 15.

The U.S. Forest Service log grade descriptions for Douglas-fir (USDA Forest Service 1965) state that No. 1 Peelers must produce clear veneer. The official log grading and scaling rules for the Columbia River Log Scaling and Grading Bureau state that "No. 1 Peeler logs shall produce clear, uniform-colored veneer in an amount not less than 50 percent of the net scaled log volume." What constitutes clear veneer and what point of measurement to use are not specified in either case.

The No. 1 Peeler woods-length logs and blocks, respectively, produced 24.0 percent and 28.5 percent combined A and A patch veneer. Both percentages are less than specified generally by the log grades. There is room for interpretation as to what constitutes clear veneer. It is difficult for the log grader to accurately predict product recovery on such a basis and use it as a log grade specification. Therefore, there is a need for the new Coast Douglas-fir timber cruising grades (Lane et al. 1973b) that recognize surface characteristics rather than estimates of product types.

VENEER ITEM RECOVERY

The distribution of the veneer volume by grade and item is shown in Appendix A, tables 20 to 26, and Appendix B, tables 41 to 47, for logs and blocks, respectively. Thickness is shown for each item--full sheets, half sheets, and random width veneer. Approximately 87.5 percent of the volume from woods-length logs was peeled as 1/10-inch, 10.9 percent as 1/8-inch, and 1.6 percent as 1/5-inch veneer.

A separate column is included in these tables for below grade veneer. This represents veneer clipped and dried for use in mill-certified plywood panels. Grade D specifications admit some rot in the veneer sheet. This is usually *Fomes pini*, commonly called white speck rot. Much of the mill-certified or below grade veneer was produced as a result of veneer with white speck rot that did not meet the grade D specification.

The green veneer full sheets were peeled and clipped to approximately 52½ by 101 inches. The resulting dry veneer sheet averaged slightly over 51 inches wide and 101 inches long. The veneer production from woods-length logs was divided between the three veneer items: Full sheets accounted for 39.3 percent of the veneer volume; half sheets, 29.8 percent; and random width strips, 30.9 percent.
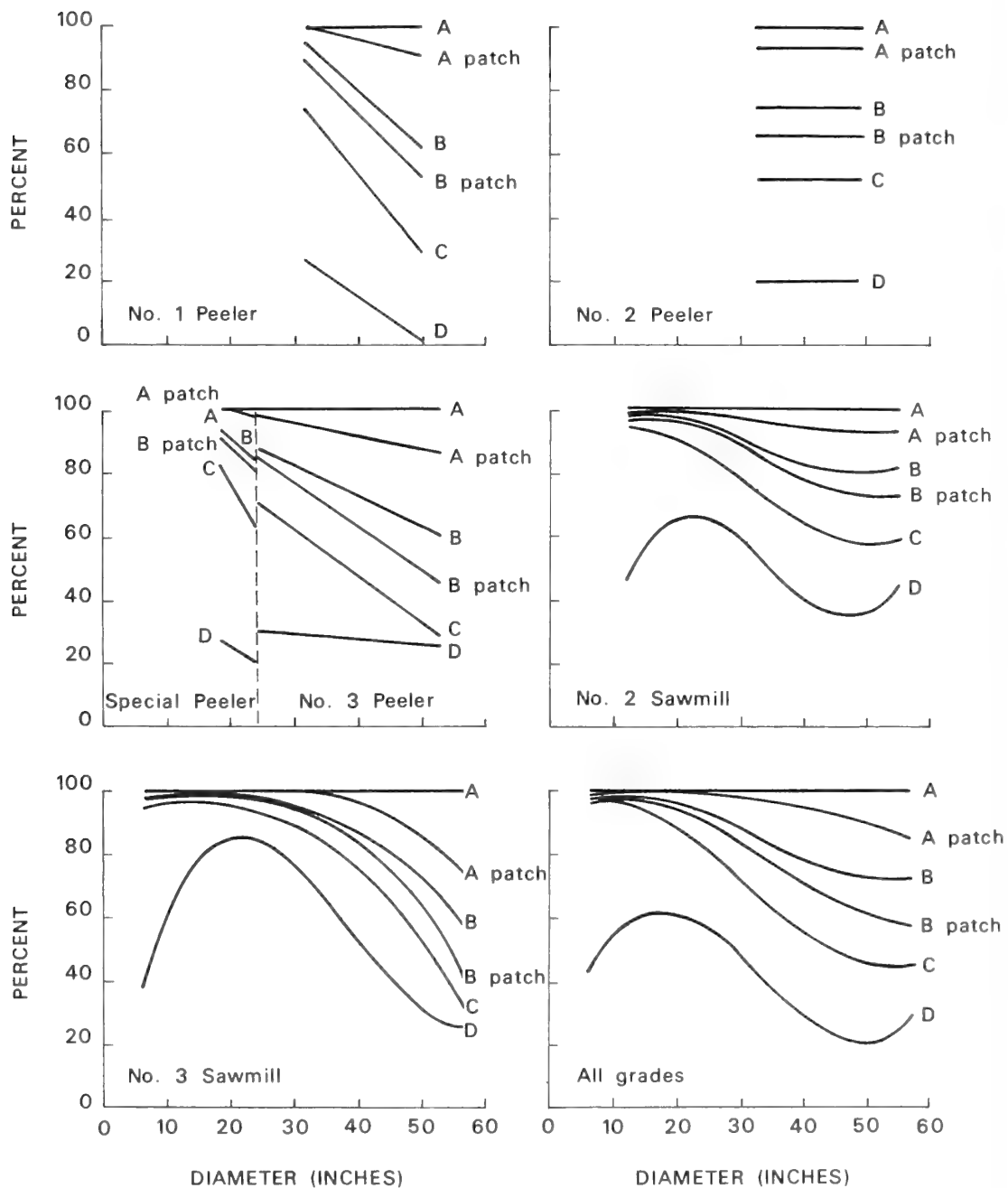
Figure 8.--*Veneer recovery percentage from woods-length logs by diameter and grade.*
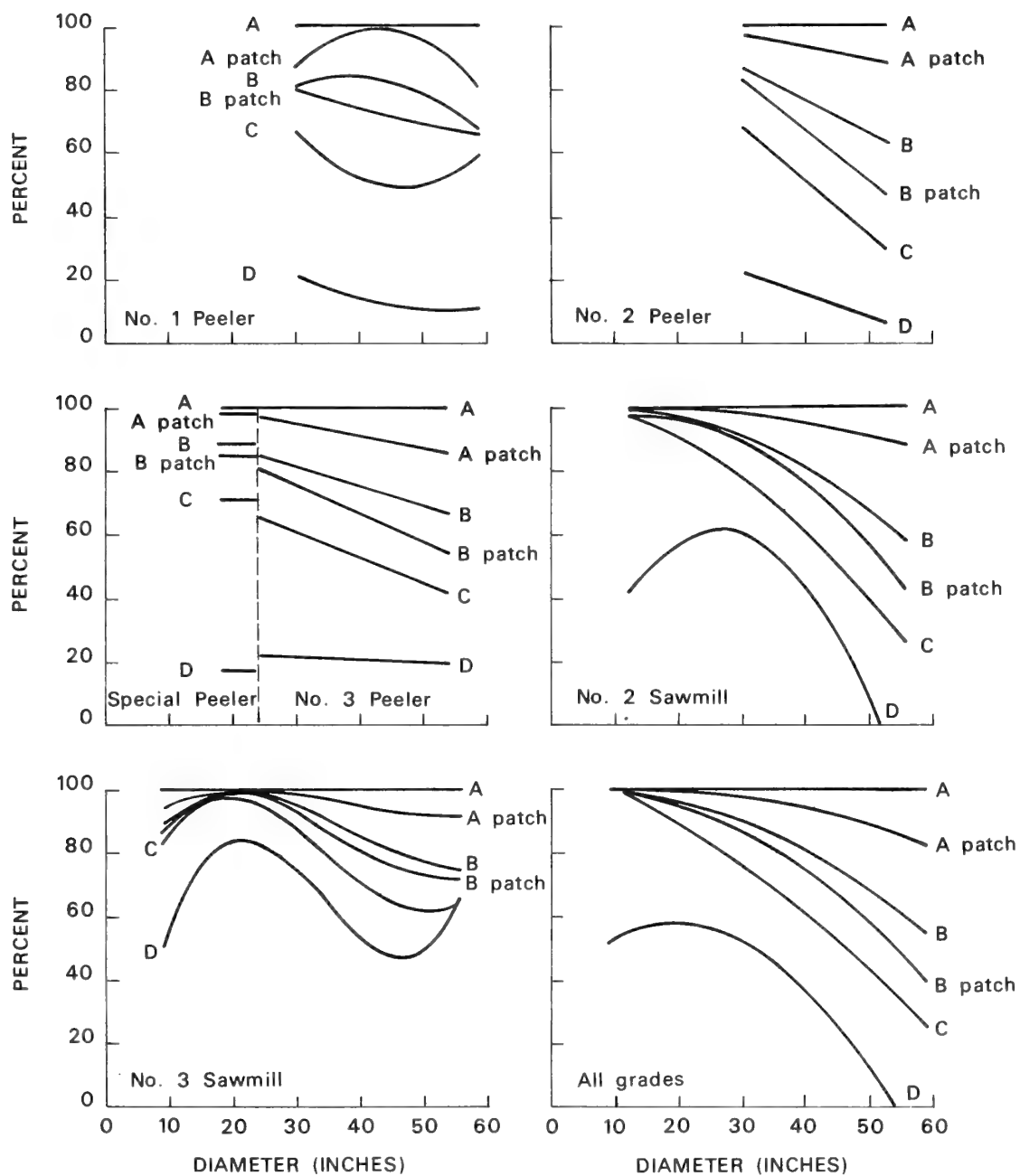
Figure 9.--*Veneer recovery percentage from veneer blocks by block diameter and grade.*

CONCLUSIONS

Veneer grade recovery percentage can be estimated by log and block diameter classes. A mill manager can use this information to predict veneer grade output from a log batch.

Veneer volume on a square-foot, 3/8-inch basis, can be estimated by log grade and diameter class.

Veneer grade recovery percentages should vary with log grade. However, between the present No. 1, 2, and 3 Peeler grade woods-length logs in this sample, there was little difference in the percentage yield of B patch and better grade veneer.

Veneer recovery ratios averaged higher for woods-length logs than for individual blocks. This is attributed partly to less defect deductions made on the bucked blocks than on long logs.

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APPENDIX A

Woods-Length Logs

Table 6.–Log scale, veneer tally, and cubic volumes by scaling diameter, No. 1 Peeler grade logs

Log scaling diameter (inches)	Number of logs	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		- - Board feet - -		Square feet		- - - Cubic feet - - -		Percent	- - - - - Cubic feet - - - - -		
31	2	2,260	1,760	4,338	2.46	315.37	136.26	43.21	1.02	30.61	147.48
32	0	--	--	--	--	--	--	--	--	--	--
33	0	--	--	--	--	--	--	--	--	--	--
34	2	2,600	2,330	6,100	2.62	354.66	184.96	52.15	.15	19.10	150.45
35	4	7,440	6,430	17,785	2.77	1,125.16	554.96	49.32	4.11	87.15	478.94
36	2	1,960	1,650	5,919	3.59	273.75	179.55	65.59	0	16.09	78.11
3˙	2	3,270	2,810	11,054	3.93	505.18	333.20	65.96	7.97	16.13	147.88
3.	1	1,070	920	3,618	3.93	142.86	109.74	76.82	0	7.94	25.18
39	3	3,500	3,290	9,940	3.02	482.43	301.36	62.47	0	46.82	134.25
40	2	2,550	1,910	6,540	3.42	382.74	198.20	51.78	0	51.11	133.43
41	0	--	--	--	--	--	--	--	--	--	--
42	2	2,860	2,630	8,090	3.08	357.57	245.18	68.57	0	30.87	81.52
43	2	5,920	5,220	13,383	2.56	727.01	405.51	55.78	2.43	37.69	281.38
44	2	4,710	4,050	11,348	2.80	600.66	343.85	57.24	2.42	45.66	208.73
45	1	2,470	1,660	5,434	3.27	320.79	178.40.	68.73	35.15	18.74	88.50
46	1	2,580	2,280	8,324	3.65	370.81	254.84	68.72	.86	6.16	108.95
47	0	--	--	--	--	--	--	--	--	--	--
48	0	--	--	--	--	--	--	--	--	--	--
49	1	2,920	2,690	6,557	2.44	367.48	215.11	58.54	4.80	17.21	130.36
50	1	1,990	1,870	5,431	2.90	275.36	159.10	57.78	8.00	13.85	94.41
Total or average	28	48,100	41,500	123,861	2.98	6,601.83	3,800.22	57.56	66.91	445.13	2,289.57

Table 7.–Log scale, veneer tally, and cubic volumes by scaling diameter, No. 2 Peeler grade logs

Log scaling diameter (inches)	Number of logs	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		- - Board feet - -		Square feet		- - - Cubic feet - - -		Percent	- - - - - Cubic feet - - - - -		
32	1	1,560	1,400	3,990	2.85	213.28	120.90	56.69	0.11	14.62	77.65
33	2	3,340	3,130	12,028	3.84	538.31	351.68	65.33	19.05	30.34	137.24
34	2	3,400	3,340	11,291	3.38	527.28	355.67	67.45	7.10	24.50	140.01
35	3	5,140	4,570	15,229	3.33	792.92	454.48	57.32	17.76	46.40	274.28
36	4	6,800	6,220	21,273	3.42	1,041.49	641.72	61.62	12.97	76.41	310.39
37	2	3,850	3,230	8,925	2.76	544.83	272.36	49.99	3.43	17.26	251.78
38	1	2,260	1,420	5,737	4.04	324.22	186.35	57.48	16.09	27.21	94.57
39	2	3,640	3,500	11,045	3.16	517.57	327.67	63.31	10.67	25.62	153.61
40	1	1,960	1,540	3,884	2.52	237.25	117.72	49.62	.47	13.32	105.74
41	0	--	--	--	--	--	--	--	--	--	--
42	3	7,900	6,590	15,450	2.34	1,018.01	483.61	47.50	1.88	131.46	401.06
43	2	5,230	4,440	14,789	3.33	713.06	456.17	63.97	4.45	23.62	228.82
44	0	--	--	--	--	--	--	--	--	--	--
45	0	--	--	--	--	--	--	--	--	--	--
46	0	--	--	--	--	--	--	--	--	--	--
47	0	--	--	--	--	--	--	--	--	--	--
48	3	8,330	7,360	20,796	2.83	1,090.68	612.78	56.18	35.31	88.64	353.95
49	1	2,920	2,480	7,748	3.12	432.30	254.30	58.82	5.79	19.88	152.33
Total or average	27	56,330	49,220	152,185	3.09	7,991.20	4,635.41	58.01	135.08	539.28	2,681.43

Table 8.–Log scale, veneer tally, and cubic volumes by scaling diameter, No. 3 Peeler grade logs

Log scaling diameter (inches)	Number of logs	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		- - Board feet - -		Square feet		- - - Cubic feet - - -		Percent	- - - - - Cubic feet - - - - -		
24	11	9,260	8,080	28,047	3.47	1,464.87	861.22	58.79	20.11	176.71	406.83
25	7	5,910	5,410	16,595	3.07	868.99	513.31	59.07	7.60	85.97	262.11
26	8	8,510	7,990	25,338	3.17	1,249.54	802.30	64.21	6.08	90.59	350.57
27	9	9,110	8,520	26,126	3.07	1,284.95	802.20	62.43	9.74	116.67	356.34
28	12	12,470	11,280	32,703	2.90	1,793.15	993.46	55.40	30.55	153.05	616.09
29	5	5,550	5,230	16,376	3.13	803.59	498.50	62.03	17.82	74.39	212.88
30	8	9,470	8,770	27,268	3.11	1,346.99	850.50	63.14	7.94	98.93	389.62
31	9	11,350	9,950	27,952	2.81	1,552.57	872.39	56.19	37.20	143.91	499.07
32	7	10,970	9,680	29,096	3.01	1,587.90	907.66	57.16	25.07	110.78	544.39
33	8	11,720	10,550	34,124	3.23	1,682.35	1,052.48	62.56	23.35	96.79	509.73
34	4	6,000	4,660	14,654	3.14	808.49	438.26	54.21	11.32	89.71	269.20
35	6	9,300	8,440	29,994	3.55	1,353.53	915.25	67.62	44.99	65.08	328.21
36	4	7,380	5,920	20,418	3.45	1,096.23	628.55	57.34	20.99	57.11	389.58
37	3	5,010	4,340	14,019	3.23	680.72	440.55	64.72	14.89	32.93	192.35
38	5	10,780	9,760	31,239	3.20	1,542.27	976.18	63.29	71.35	58.73	436.01
39	3	5,250	4,390	13,898	3.17	736.10	438.92	59.63	13.21	39.45	244.52
40	1	2,560	1,960	4,959	2.53	348.26	151.80	43.59	7.15	41.09	148.22
41	0	--	--	--	--	--	--	--	--	--	--
42	1	2,860	2,370	5,848	2.47	370.43	177.11	47.81	8.54	40.59	144.19
43	2	5,230	4,700	12,773	2.72	643.44	389.91	60.60	0	23.83	229.70
44	0	--	--	--	--	--	--	--	--	--	--
45	2	4,080	3,750	9,974	2.66	556.73	315.69	56.70	35.98	33.31	171.75
46	3	7,740	5,970	17,337	2.90	1,021.85	529.77	51.84	14.18	81.11	396.79
47	2	4,450	3,600	10,690	2.97	578.43	342.18	59.16	9.81	29.23	197.21
48	2	6,490	5,620	11,999	2.14	868.81	363.78	41.87	6.85	115.89	382.29
49	2	1,800	750	4,731	6.31	290.56	153.79	52.93	4.33	29.36	103.08
50	0	--	--	--	--	--	--	--	--	--	--
51	0	--	--	--	--	--	--	--	--	--	--
52	0	--	--	--	--	--	--	--	--	--	--
53	1	2,230	1,870	4,434	2.37	264.48	134.34	50.79	.14	23.66	106.34
Total or average	125	175,480	153,560	470,592	3.06	24,795.23	14,550.10	58.68	449.19	1,908.87	7,887.07

Table 9.–Log scale, veneer tally, and cubic volumes by scaling diameter, Special Peeler grade logs

Log scaling diameter (inches)	Number of logs	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		- - Board feet - -		Square feet		- - - Cubic feet - - -		Percent	- - - - - Cubic feet - - - - -		
18	9	4,070	3,870	13,272	3.43	708.15	407.35	57.52	5.92	87.85	207.03
19	11	4,850	4,610	13,846	3.00	781.33	418.50	53.56	10.49	105.42	246.92
20	11	6,500	6,030	20,560	3.41	1,043.73	627.83	60.15	11.33	135.58	268.99
21	9	5,690	5,470	18,180	3.32	899.60	555.51	61.75	5.02	90.42	248.65
22	10	6,400	6,030	19,404	3.22	1,046.77	593.70	56.72	9.81	106.43	336.83
23	16	12,500	11,810	37,702	3.19	1,907.39	1,172.72	61.48	15.20	174.30	545.17
Total or average	66	40,010	37,820	122,964	3.25	6,386.97	3,775.61	59.11	57.77	700.00	1,853.59

Table 10.–Log scale, veneer tally, and cubic volumes by scaling diameter, No. 2 Sawmill grade logs

Log scaling diameter (inches)	Number of logs	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		- - Board feet - -		Square feet		- - - Cubic feet - - -		Percent	- - - - - Cubic feet - - - - -		
12	17	2,240	2,220	6,187	2.79	465.97	192.41	41.29	8.25	156.99	108.32
13	24	3,930	3,740	10,318	2.76	773.31	317.92	41.11	27.96	222.08	205.35
14	21	4,300	4,090	13,576	3.32	862.39	414.84	48.10	24.07	196.22	227.26
15	43	10,700	10,230	32,648	3.19	2,039.59	1,010.59	49.55	59.05	424.40	545.55
16	26	7,780	7,380	22,915	3.11	1,479.68	703.04	47.51	86.59	253.64	436.41
17	42	13,740	12,760	42,132	3.30	2,526.81	1,301.77	51.52	83.35	416.82	724.87
18	14	5,330	5,230	16,283	3.11	894.99	508.00	56.76	20.25	128.37	238.37
19	14	6,250	5,560	19,506	3.51	1,044.49	599.66	57.41	29.16	136.77	278.90
20	25	12,830	11,730	36,064	3.07	2,052.92	1,115.36	54.33	65.94	270.96	600.66
21	20	12,050	11,430	34,881	3.05	1,960.51	1,080.65	55.12	90.83	231.60	557.43
22	19	11,290	10,350	30,191	2.92	1,811.04	934.08	51.58	104.03	212.30	560.63
23	16	11,950	11,130	30,265	2.72	1,798.88	938.05	52.15	151.82	187.41	521.60
24	15	12,670	11,470	35,310	3.08	2,004.39	1,080.57	53.91	108.49	168.35	646.98
25	24	20,450	18,010	50,372	2.80	2,989.93	1,558.19	52.11	217.07	303.44	911.23
26	15	14,820	14,160	40,128	2.83	2,168.00	1,254.48	57.86	185.06	166.99	561.47
27	19	21,130	18,280	52,160	2.85	2,994.19	1,614.06	53.91	191.43	222.43	966.27
28	15	17,820	16,000	46,024	2.88	2,575.70	1,414.74	54.93	210.72	206.64	743.60
29	12	14,450	12,430	33,825	2.72	2,096.31	1,066.66	50.88	167.47	165.79	696.39
30	10	13,350	11,790	35,088	2.98	1,939.02	1,094.25	56.43	40.71	182.15	621.91
31	15	19,260	16,920	46,604	2.75	2,645.92	1,421.08	53.71	185.88	170.82	868.14
32	11	15,200	13,540	36,475	2.69	2,163.61	1,098.90	50.79	286.59	150.55	627.57
33	6	8,820	7,610	23,626	3.10	1,279.28	725.99	56.75	100.55	83.83	368.91
34	13	19,600	16,080	47,057	2.93	2,948.75	1,482.40	50.27	193.77	219.62	1,052.96
35	6	9,790	8,840	22,799	2.58	1,365.23	705.31	51.66	183.52	73.72	402.68
36	4	7,720	6,880	16,389	2.38	1,110.41	516.94	46.55	120.70	79.26	393.51
37	5	8,790	6,440	19,652	3.05	1,259.71	620.66	49.27	119.80	109.28	409.97
38	0	--	--	--	--	--	--	--	--	--	--
39	7	15,540	13,010	40,510	3.11	2,188.59	1,244.66	56.87	219.22	89.10	635.61
40	4	10,240	9,520	22,748	2.39	1,324.84	699.02	52.76	127.53	81.90	416.39
41	3	6,760	5,870	14,101	2.40	872.88	447.63	51.28	10.87	94.38	320.00
42	5	10,740	9,150	17,651	1.93	1,348.41	554.76	41.14	193.39	83.71	516.55
43	1	2,270	1,170	5,640	4.82	287.96	183.36	63.68	9.20	25.54	69.86
44	3	7,850	6,770	17,210	2.54	1,118.59	530.31	47.41	160.16	79.88	348.24
45	2	6,440	6,180	16,859	2.73	875.52	526.86	60.18	3.24	33.88	311.54
46	3	8,540	6,670	22,014	3.30	1,131.99	683.89	60.41	61.94	43.27	342.89
47	0	--	--	--	--	--	--	--	--	--	--
48	0	--	--	--	--	--	--	--	--	--	--
49	0	--	--	--	--	--	--	--	--	--	--
50	1	940	470	1,411	3.00	143.60	45.84	31.92	2.24	15.37	80.15
51	0	--	--	--	--	--	--	--	--	--	--
52	0	--	--	--	--	--	--	--	--	--	--
53	0	--	--	--	--	--	--	--	--	--	--
54	0	--	--	--	--	--	--	--	--	--	--
55	2	7,220	2,490	11,770	4.73	938.70	364.19	38.80	69.80	55.98	448.73
Total or average	482	382,800	335,600	970,389	2.89	57,482.11	30,051.12	52.28	3,920.65	5,743.44	17,766.90

18

Table 11.–Log scale, veneer tally, and cubic volumes by scaling diameter, No. 3 Sawmill grade logs

Log scaling diameter (inches)	Number of logs	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		- - Board feet - -		Square feet		- - - Cubic feet - - -		Percent	- - - - - Cubic feet - - - - -		
6	1	20	20	65	3.25	10.30	1.94	18.83	0	5.18	3.18
7	0	--	--	--	--	--	--	--	--	--	--
8	0	--	--	--	--	--	--	--	--	--	--
9	0	--	--	--	--	--	--	--	--	--	--
10	4	440	440	1,316	2.99	99.91	39.91	39.95	.35	27.05	32.60
11	16	2,020	1,800	5,661	3.14	483.31	173.35	35.87	13.86	143.05	153.05
12	4	590	540	2,345	4.34	171.86	70.91	41.26	13.53	36.63	50.79
13	13	1,590	1,400	4,700	3.36	423.64	142.83	33.71	50.51	82.06	148.24
14	12	1,830	1,640	4,956	3.02	435.46	155.28	35.66	55.99	88.85	135.34
15	16	3,220	2,590	7,765	3.00	744.51	238.46	32.03	56.62	152.21	297.22
16	12	3,040	2,550	7,549	2.96	637.91	234.92	36.83	43.54	95.74	263.71
17	6	1,820	1,400	3,409	2.43	376.87	106.17	28.17	35.49	62.78	172.43
18	8	3,250	2,670	9,609	3.60	645.90	299.76	46.41	36.37	76.79	232.98
19	21	7,180	6,120	15,722	2.57	1,331.97	483.33	36.29	176.96	198.71	472.97
20	9	3,880	3,280	10,246	3.12	649.29	317.03	48.83	78.83	65.95	187.48
21	7	2,510	1,880	3,615	1.92	378.41	112.21	29.65	48.91	55.75	161.54
22	6	3,790	2,870	5,612	1.96	676.84	173.71	25.66	170.34	66.95	265.84
23	8	4,650	4,000	8,787	2.20	753.13	268.11	35.60	113.90	92.10	279.02
24	8	4,280	3,390	6,889	2.03	700.21	211.43	30.19	116.57	64.18	308.03
25	6	4,400	3,200	9,536	2.98	708.10	298.76	42.19	24.20	89.20	295.94
26	3	2,120	1,720	4,484	2.61	325.63	140.36	43.10	55.61	28.25	101.41
27	3	3,560	1,880	4,588	2.44	631.11	142.04	22.51	97.38	44.51	347.18
28	4	3,100	2,460	5,170	2.10	449.28	162.18	36.10	63.05	44.45	179.60
29	3	4,310	3,550	8,334	2.35	641.51	260.99	40.68	127.39	43.67	209.46
30	0	--	--	--	--	--	--	--	--	--	--
31	0	--	--	--	--	--	--	--	--	--	--
32	2	3,120	2,270	4,443	1.96	428.85	135.05	31.49	.98	58.60	234.22
33	3	2,890	2,490	4,426	1.78	425.20	133.85	31.48	58.62	38.73	194.00
34	2	3,000	1,950	3,753	1.92	427.41	121.93	28.53	106.47	52.30	146.71
35	0	--	--	--	--	--	--	--	--	--	--
36	3	3,920	3,330	6,595	1.98	580.37	197.54	34.04	158.91	49.41	174.51
37	0	--	--	--	--	--	--	--	--	--	--
38	1	1,130	670	841	1.26	160.05	27.33	17.08	0	20.44	112.28
39	0	--	--	--	--	--	--	--	--	--	--
40	1	1,960	1,220	1,714	1.40	273.66	55.72	20.36	103.03	16.28	98.63
41	0	--	--	--	--	--	--	--	--	--	--
42	0	--	--	--	--	--	--	--	--	--	--
43	0	--	--	--	--	--	--	--	--	--	--
44	0	--	--	--	--	--	--	--	--	--	--
45	0	--	--	--	--	--	--	--	--	--	--
46	0	--	--	--	--	--	--	--	--	--	--
47	0	--	--	--	--	--	--	--	--	--	--
48	1	1,840	1,480	2,367	1.60	220.40	76.96	34.92	82.09	7.73	53.62
49	0	--	--	--	--	--	--	--	--	--	--
50	1	1,990	1,080	2,258	2.09	266.65	73.34	27.50	94.36	7.57	91.38
51	0	--	--	--	--	--	--	--	--	--	--
52	0	--	--	--	--	--	--	--	--	--	--
53	0	--	--	--	--	--	--	--	--	--	--
54	0	--	--	--	--	--	--	--	--	--	--
55	0	--	--	--	--	--	--	--	--	--	--
56	0	--	--	--	--	--	--	--	--	--	--
57	1	2,590	1,640	4,034	2.46	332.39	122.19	36.76	0	32.58	177.62
Total or average	185	84,040	65,530	160,789	2.45	14,390.13	4,977.59	34.59	1,983.86	1,847.70	5,580.98

Table 12.—Log scale, veneer tally, and cubic volumes by scaling diameter, all logs

Log scaling diameter (inches)	Number of logs	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		- - Board feet - -		_Square feet_		_- - - Cubic feet - - -_		_Percent_	_- - - - - Cubic feet - - - - -_		
6	1	20	20	65	3.25	10.30	1.94	18.83	0	5.18	3.18
7	0	--	--	--	--	--	--	--	--	--	--
8	0	--	--	--	--	--	--	--	--	--	--
9	0	--	--	--	--	--	--	--	--	--	--
10	4	440	440	1,316	2.99	99.91	39.91	39.95	.35	27.05	32.60
11	16	2,020	1,800	5,661	3.14	483.31	173.35	35.87	13.86	143.05	153.05
12	21	2,830	2,760	8,532	3.09	637.83	263.32	41.28	21.78	193.62	159.11
13	37	5,520	5,140	15,018	2.92	1,196.95	460.75	38.49	78.47	304.14	353.59
14	33	6,130	5,730	18,532	3.23	1,297.85	570.12	43.93	80.06	285.07	362.60
15	59	13,920	12,820	40,413	3.15	2,784.10	1,249.05	44.86	115.67	576.61	842.77
16	38	10,820	9,930	30,464	3.07	2,117.59	937.96	44.29	130.13	349.38	700.12
17	48	15,560	14,160	45,541	3.22	2,903.68	1,407.95	48.49	118.84	479.60	897.30
18	31	12,650	11,770	39,164	3.33	2,249.04	1,215.11	54.03	62.54	293.01	678.38
19	46	18,280	16,290	49,071	3.01	3,157.79	1,501.49	47.55	216.61	440.90	998.79
20	45	23,210	21,040	66,870	3.18	3,745.94	2,060.22	55.00	156.10	472.49	1,057.13
21	36	20,250	18,780	56,676	3.02	3,238.52	1,748.37	53.99	144.76	377.77	967.62
22	35	21,480	19,250	55,207	2.87	3,534.65	1,701.49	48.14	284.18	385.68	1,163.30
23	40	29,100	26,940	76,754	2.85	4,459.40	2,378.88	53.34	280.92	453.81	1,345.79
24	34	26,210	22,940	70,246	3.06	4,169.47	2,153.22	51.64	245.17	409.24	1,361.84
25	37	30,760	26,620	76,503	2.87	4,567.02	2,370.26	51.90	248.87	478.61	1,469.28
26	26	25,450	23,870	69,950	2.93	3,743.17	2,197.14	58.70	246.75	285.83	1,013.45
27	31	33,800	28,680	82,874	2.89	4,910.25	2,558.30	52.10	298.55	383.61	1,669.79
28	31	33,390	29,740	83,897	2.82	4,818.13	2,570.38	53.35	304.32	404.14	1,539.29
29	20	24,310	21,210	58,535	2.76	3,541.41	1,826.15	51.57	312.68	283.85	1,118.73
30	18	22,820	20,560	62,356	3.03	3,286.01	1,944.75	59.18	48.65	281.08	1,011.53
31	26	32,870	28,630	78,894	2.76	4,513.86	2,429.73	53.83	224.10	345.34	1,514.69
32	21	30,850	26,890	74,004	2.75	4,393.64	2,262.51	51.49	312.75	334.55	1,483.83
33	19	26,770	23,780	74,204	3.12	3,925.14	2,264.00	57.68	201.57	249.69	1,209.88
34	23	34,600	28,360	82,855	2.92	5,066.59	2,583.22	50.98	318.81	405.23	1,759.33
35	19	31,670	28,280	85,807	3.03	4,636.84	2,630.00	56.72	250.38	272.35	1,484.11
36	17	27,780	24,000	70,594	2.94	4,102.25	2,164.30	52.76	313.57	278.28	1,346.10
37	12	20,920	16,820	53,650	3.19	2,990.44	1,666.77	55.74	146.09	175.60	1,001.98
38	8	15,240	12,770	41,435	3.24	2,169.40	1,299.60	59.91	87.44	114.32	668.04
39	15	27,930	24,190	75,393	3.12	3,924.69	2,312.61	58.92	243.10	200.99	1,167.99
40	9	19,270	16,150	39,845	2.47	2,566.75	1,222.46	47.63	238.18	203.70	902.41
41	3	6,760	5,870	14,101	2.40	872.88	447.63	51.28	10.87	94.38	320.00
42	11	24,360	20,740	47,039	2.27	3,094.42	1,460.66	47.20	203.81	286.63	1,143.32
43	7	18,650	15,530	46,585	3.00	2,371.47	1,434.95	60.51	16.08	110.68	809.76
44	5	12,560	10,820	28,558	2.64	1,719.25	874.16	50.84	162.58	125.54	556.97
45	5	12,990	11,590	32,267	2.78	1,753.04	1,020.95	58.24	74.37	85.93	571.79
46	7	18,860	14,920	47,675	3.20	2,524.65	1,468.50	58.17	76.98	130.54	848.63
47	2	4,450	3,600	10,690	2.97	578.43	342.18	59.16	9.81	29.23	197.21
48	6	16,660	14,460	35,162	2.43	2,179.89	1,053.52	48.33	124.25	212.26	789.86
49	4	7,640	5,920	19,036	3.22	1,090.34	623.20	57.16	14.92	66.45	385.77
50	3	4,920	3,420	9,100	2.66	685.61	278.28	40.59	104.60	36.79	265.94
51	0	--	--	--	--	--	--	--	--	--	--
52	0	--	--	--	--	--	--	--	--	--	--
53	1	2,230	1,870	4,434	2.37	264.48	134.34	50.79	.14	23.66	106.34
54	0	--	--	--	--	--	--	--	--	--	--
55	2	7,220	2,490	11,770	4.73	938.70	364.19	38.80	69.80	55.98	448.73
56	0	--	--	--	--	--	--	--	--	--	--
57	1	2,590	1,640	4,034	2.46	332.39	122.19	36.76	0	32.58	177.62
Total or average	913	786,760	683,230	2,000,780	2.93	117,647.47	61,790.05	52.52	6,613.46	11,184.42	38,059.54

20

Table 13.–Veneer recovery by log scaling diameter, No. 1 Peeler grade, woods-length logs

Log scaling diameter (inches)	Number of logs	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	- - - - - - - - - - - *Percent* - - - - - - - - - - - -					
31	2	4,338	0.6	2.8	6.6	5.8	48.7	35.5
32	0	--	--	--	--	--	--	--
33	0	--	--	--	--	--	--	--
34	2	6,100	.8	3.8	4.2	12.1	31.3	47.8
35	4	17,785	1.8	7.4	4.3	15.8	55.0	15.7
36	2	5,919	.8	13.5	4.3	37.2	32.1	12.1
37	2	11,054	4.6	36.2	10.3	3.8	39.1	6.0
38	1	3,618	12.2	22.1	7.1	20.1	33.4	5.1
39	3	9,940	.2	5.0	11.3	33.0	35.1	15.4
40	2	6,540	2.6	6.8	3.0	18.1	56.1	13.4
41	0	--	--	--	--	--	--	--
42	2	8,090	1.4	6.6	5.0	38.6	31.4	17.0
43	2	13,383	3.4	28.7	24.5	21.9	16.0	5.5
44	2	11,348	35.5	23.7	4.6	15.4	17.2	3.6
45	1	5,434	0	28.9	0	19.1	22.1	29.9
46	1	8,324	2.2	45.2	15.4	10.9	20.8	5.5
47	0	--	--	--	--	--	--	--
48	0	--	--	--	--	--	--	--
49	1	6,557	0	36.4	0	14.1	40.9	8.6
50	1	5,431	4.1	3.9	11.5	14.9	57.0	8.6
Total or average	28	123,861	5.3	18.7	8.4	18.6	35.4	13.6

Table 14.–Veneer recovery by log scaling diameter, No. 2 Peeler grade, woods-length logs

Log scaling diameter (inches)	Number of logs	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	- - - - - - - - - - - *Percent* - - - - - - - - - - - -					
32	1	3,990	0.5	3.2	9.4	8.1	26.8	52.0
33	2	12,028	11.2	21.7	6.5	11.3	40.2	9.1
34	2	11,291	3.1	21.5	7.6	14.2	22.0	31.7
35	3	15,229	.8	8.8	4.8	11.9	42.5	31.2
36	4	21,273	12.7	23.2	7.6	13.0	28.5	15.0
37	2	8,925	10.5	20.7	5.5	14.8	22.4	26.1
38	1	5,737	9.0	9.6	2.3	19.9	21.4	37.8
39	2	11,045	3.5	26.1	11.6	6.7	34.6	17.5
40	1	3,884	4.0	20.7	10.6	24.9	18.2	21.6
41	0	--	--	--	--	--	--	--
42	3	15,450	3.0	17.2	10.7	20.2	36.2	12.7
43	2	14,789	9.5	30.7	14.6	15.5	19.0	10.7
44	0	--	--	--	--	--	--	--
45	0	--	--	--	--	--	--	--
46	0	--	--	--	--	--	--	--
47	0	--	--	--	--	--	--	--
48	3	20,796	12.9	6.6	13.7	11.9	38.9	16.0
49	1	7,748	0	34.2	0	16.2	37.3	12.3
Total or average	27	152,185	7.3	18.9	8.8	13.9	31.5	19.6

Table 15.–Veneer recovery by log scaling diameter, No. 3 Peeler grade, woods-length logs

Log scaling diameter (inches)	Number of logs	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	- - - - - - - - - - - Percent - - - - - - - - - -					
24	11	28,047	3.1	8.5	4.2	13.1	45.8	25.3
25	7	16,595	3.6	9.9	4.0	11.9	44.4	26.2
26	8	25,338	1.6	18.6	2.6	21.9	30.6	24.7
27	9	26,126	2.6	13.7	2.3	12.6	44.9	23.9
28	12	32,703	2.4	9.1	6.0	12.1	39.2	31.2
29	5	16,376	1.1	16.4	5.6	17.4	31.0	28.5
30	8	27,268	4.6	21.3	5.0	20.9	23.5	24.7
31	9	27,952	3.7	8.2	4.3	12.6	38.2	33.0
32	7	29,096	3.9	15.7	6.2	19.5	28.7	26.0
33	8	34,124	5.2	16.0	3.5	17.5	22.6	35.2
34	4	14,654	10.2	19.5	4.5	7.7	36.5	21.6
35	6	29,994	2.2	17.9	2.1	18.5	26.6	32.7
36	4	20,418	2.6	21.7	7.6	17.2	24.1	26.8
37	3	14,019	3.9	9.3	5.2	25.2	19.2	37.2
38	5	31,239	15.9	19.9	4.8	15.4	25.1	18.9
39	3	13,898	11.0	19.6	4.7	18.9	14.4	31.4
40	1	4,959	1.4	21.1	18.9	2.9	24.0	31.7
41	0	--	--	--	--	--	--	--
42	1	5,848	10.8	22.6	13.1	16.6	10.4	26.5
43	2	12,773	3.6	23.9	12.7	9.2	25.0	25.6
44	0	--	--	--	--	--	--	--
45	2	9,974	2.5	24.1	11.0	19.4	12.6	30.4
46	3	17,337	3.9	23.5	10.0	9.5	13.2	39.9
47	2	10,690	1.2	24.0	3.2	14.8	23.3	33.5
48	2	11,999	10.8	22.8	18.6	12.7	21.5	13.6
49	2	4,731	20.9	8.0	17.9	19.6	25.5	8.1
50	0	--	--	--	--	--	--	--
51	0	--	--	--	--	--	--	--
52	0	--	--	--	--	--	--	--
53	1	4,434	21.4	12.2	20.4	20.5	23.0	2.5
Total or average	125	470,592	5.1	16.4	5.9	15.8	29.1	27.7

Table 16.–Veneer recovery by log scaling diameter, Special Peeler grade, woods-length logs

Log scaling diameter (inches)	Number of logs	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	- - - - - - - - - - Percent - - - - - - - - - -					
18	9	13,272	0.3	7.3	3.0	8.9	66.4	14.1
19	11	13,846	.7	4.7	2.5	7.4	53.4	31.3
20	11	20,560	1.1	8.7	3.7	12.3	49.5	24.7
21	9	18,180	1.1	10.4	3.7	13.8	36.7	34.3
22	10	19,404	1.2	10.0	2.9	16.3	53.2	16.4
23	16	37,702	2.0	13.2	3.5	15.6	46.7	19.0
Total or average	66	122,964	1.3	9.9	3.3	13.2	49.6	22.7

Table 17.–Veneer recovery by log scaling diameter, No. 2 Sawmill grade, woods-length logs

Log scaling diameter (inches)	Number of logs	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	- - - - - - - - - - *Percent* - - - - - - - - - -					
12	17	6,187	0.5	1.2	1.5	1.8	48.5	46.5
13	24	10,318	.4	1.1	.7	1.5	55.1	41.2
14	21	13,576	.3	1.2	.7	2.7	49.4	45.7
15	43	32,648	.4	1.0	.9	3.4	35.2	60.0
16	26	22,915	.5	3.6	.9	4.3	37.5	52.2
17	42	42,132	.7	2.2	1.7	6.6	32.3	56.5
18	14	16,283	.1	.5	.2	4.5	29.1	65.6
19	14	19,506	1.0	2.2	1.3	7.2	29.8	58.5
20	25	36,064	.7	2.6	1.4	6.8	23.7	64.8
21	20	34,881	.4	2.8	1.4	8.4	25.8	61.2
22	19	30,191	.7	1.8	1.6	3.3	21.8	70.8
23	16	30,265	.5	2.4	2.0	7.9	21.9	65.3
24	15	35,310	.4	2.3	1.6	6.7	19.7	69.3
25	24	50,372	.9	3.2	1.4	7.6	20.2	66.7
26	15	40,128	1.1	3.4	1.5	13.9	11.4	68.7
27	19	52,160	1.5	5.8	2.2	7.4	18.2	64.9
28	15	46,024	.7	3.0	1.4	6.9	11.4	76.6
29	12	33,825	1.6	4.0	1.9	14.6	27.7	50.2
30	10	35,088	2.6	11.1	3.7	15.7	20.4	46.5
31	15	46,604	1.8	7.4	3.8	12.3	19.1	55.6
32	11	36,475	2.6	6.1	3.8	10.6	19.2	57.7
33	6	23,626	4.8	11.5	3.7	12.2	11.4	56.4
34	13	47,057	3.6	9.6	5.1	16.7	19.7	45.3
35	6	22,799	4.0	17.2	1.2	12.2	18.4	47.0
36	4	16,389	5.0	11.7	5.0	11.4	17.4	49.5
37	5	19,652	7.7	12.6	4.3	15.9	23.8	35.7
38	0	--	--	--	--	--	--	--
39	7	40,510	5.7	8.2	5.4	12.9	19.1	48.7
40	4	22,748	6.4	15.0	6.1	17.8	8.8	45.9
41	3	14,101	2.7	16.8	1.3	12.7	27.4	39.1
42	5	17,651	.9	8.0	11.1	10.5	28.8	40.7
43	1	5,640	8.8	24.8	1.9	27.0	11.3	26.2
44	3	17,210	6.5	10.5	1.8	10.9	34.7	35.6
45	2	16,859	11.8	12.7	17.7	22.3	16.4	19.1
46	3	22,014	16.3	9.6	7.5	15.1	18.9	28.7
47	0	--	--	--	--	--	--	--
48	0	--	--	--	--	--	--	--
49	0	--	--	--	--	--	--	--
50	1	1,411	0	1.1	5.4	19.6	32.5	41.4
51	0	--	--	--	--	--	--	--
52	0	--	--	--	--	--	--	--
53	0	--	--	--	--	--	--	--
54	0	--	--	--	--	--	--	--
55	2	11,770	3.5	20.2	9.7	14.0	15.4	37.2
Total or average	482	970,389	2.6	6.3	3.1	10.2	22.4	55.4

Table 18.–Veneer recovery by log scaling diameter, No. 3 Sawmill grade,
woods-length logs

Log scaling diameter (inches)	Number of logs	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	- - - - - - - - - - - *Percent* - - - - - - - - - - -					
6	1	65	0	0	0	0	24.6	75.4
7	0	--	--	--	--	--	--	--
8	0	--	--	--	--	--	--	--
9	0	--	--	--	--	--	--	--
10	4	1,316	0	.4	.2	0	75.3	24.1
11	16	5,661	.9	1.6	2.3	1.8	43.3	50.1
12	4	2,345	4.4	2.4	2.1	2.6	21.8	66.7
13	13	4,700	0	.1	.1	0	10.2	89.6
14	12	4,956	.4	.2	.1	.3	10.3	88.7
15	16	7,765	.2	.5	.3	2.5	9.2	87.3
16	12	7,549	1.7	1.5	.4	1.9	12.0	82.5
17	6	3,409	0	.3	.1	.6	19.1	79.9
18	8	9,609	0	.3	.2	.6	12.7	86.2
19	21	15,722	.5	.3	.3	.9	9.9	88.1
20	9	10,246	.6	.9	.5	5.1	13.7	79.2
21	7	3,615	1.3	.2	.7	.3	9.1	88.4
22	6	5,612	.5	.4	.7	3.3	7.5	87.6
23	8	8,787	1.0	2.7	1.2	4.0	6.4	84.7
24	8	6,889	0	.8	.1	3.4	15.5	80.2
25	6	9,536	.5	1.0	1.7	2.3	13.3	81.2
26	3	4,484	2.7	6.5	1.3	5.8	7.7	76.0
27	3	4,588	1.0	1.7	8.9	3.4	20.1	64.9
28	4	5,170	.6	.5	3.3	9.7	8.5	77.4
29	3	8,334	5.8	3.7	2.0	4.8	11.1	72.6
30	0	--	--	--	--	--	--	--
31	0	--	--	--	--	--	--	--
32	2	4,443	1.8	6.8	2.5	7.7	11.7	69.5
33	3	4,426	6.3	8.8	4.7	3.3	6.0	70.9
34	2	3,753	0	0	.1	1.9	12.4	85.6
35	0	--	--	--	--	--	--	--
36	3	6,595	.3	6.9	1.3	13.1	20.6	57.8
37	0	--	--	--	--	--	--	--
38	1	841	0	0	0	0	21.8	78.2
39	0	--	--	--	--	--	--	--
40	1	1,714	6.7	9.7	2.2	20.1	8.2	53.1
41	0	--	--	--	--	--	--	--
42	0	--	--	--	--	--	--	--
43	0	--	--	--	--	--	--	--
44	0	--	--	--	--	--	--	--
45	0	--	--	--	--	--	--	--
46	0	--	--	--	--	--	--	--
47	0	--	--	--	--	--	--	--
48	1	2,367	8.7	23.6	2.4	13.6	7.9	43.8
49	0	--	--	--	--	--	--	--
50	1	2,258	10.0	16.3	2.2	8.5	3.7	59.3
51	0	--	--	--	--	--	--	--
52	0	--	--	--	--	--	--	--
53	0	--	--	--	--	--	--	--
54	0	--	--	--	--	--	--	--
55	0	--	--	--	--	--	--	--
56	0	--	--	--	--	--	--	--
57	1	4,034	30.5	8.1	24.1	7.8	25.6	3.9
Total or average	185	160,789	2.2	2.6	1.9	3.8	13.6	75.9

Log scaling diameter (inches)	Number of logs	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	— — — — — — — — — Percent — — — — — — — — —					
6	1	65	0	0	0	0	24.6	75.4
7	0	--	--	--	--	--	--	--
8	0	--	--	--	--	--	--	--
9	0	--	--	--	--	--	--	--
10	4	1,316	0	.4	.2	0	75.3	24.1
11	16	5,661	.9	1.6	2.3	1.8	43.3	50.1
12	21	8,532	1.6	1.5	1.7	2.0	41.2	52.0
13	37	15,018	.3	.8	.5	1.0	41.1	56.3
14	33	18,532	.3	1.0	.5	2.0	39.0	57.2
15	59	40,413	.3	.9	.8	3.2	30.2	64.6
16	38	30,464	.8	3.0	.8	3.7	31.2	60.5
17	48	45,541	.7	2.1	1.6	6.1	31.3	58.2
18	31	39,164	.1	2.8	1.2	5.0	37.8	53.1
19	46	49,074	.8	2.3	1.3	5.2	30.1	60.3
20	45	66,870	.8	4.2	2.0	8.2	30.1	54.7
21	36	56,676	.7	5.0	2.1	9.6	28.2	54.4
22	35	55,207	.8	4.6	2.0	7.9	31.3	53.4
23	40	76,754	1.3	7.7	2.6	11.2	32.3	44.9
24	34	70,246	1.4	4.6	2.5	8.9	29.7	52.9
25	37	76,503	1.5	4.4	2.0	7.9	24.6	59.6
26	26	69,950	1.4	9.1	1.9	16.3	18.1	53.2
27	31	82,874	1.8	8.0	2.6	8.8	26.8	52.0
28	31	83,897	1.3	5.2	3.3	9.1	22.1	59.0
29	20	58,535	2.1	7.4	2.9	14.0	26.3	47.3
30	18	62,356	3.5	15.5	4.3	17.9	21.7	37.1
31	26	78,894	2.4	7.4	4.1	12.1	27.5	46.5
32	21	74,004	3.0	9.7	5.0	13.8	22.9	45.6
33	19	74,204	6.1	15.1	4.1	14.0	20.9	39.8
34	23	82,855	4.3	12.1	5.0	13.8	23.5	41.3
35	19	85,807	2.3	13.9	2.8	15.1	33.1	32.8
36	17	70,594	5.8	17.8	6.1	15.9	24.2	30.2
37	12	53,650	6.6	17.9	6.0	15.6	25.5	28.4
38	8	41,435	14.3	18.3	4.6	16.2	25.1	21.5
39	15	75,393	5.7	12.5	6.9	15.7	22.6	36.6
40	9	39,845	5.0	14.7	7.4	16.8	19.4	36.7
41	3	14,101	2.7	16.8	1.3	12.7	27.4	39.1
42	11	47,039	2.9	12.6	10.2	19.3	29.4	25.6
43	7	46,585	6.0	27.6	15.4	17.0	18.9	15.1
44	5	28,558	18.1	15.7	2.9	12.7	27.8	22.8
45	5	32,267	7.0	19.0	12.6	20.8	16.2	24.4
46	7	47,675	9.3	20.9	9.8	12.3	17.1	30.6
47	2	10,690	1.2	24.0	3.2	14.8	23.3	33.5
48	6	35,162	11.9	13.3	14.6	12.3	30.9	17.0
49	4	19,036	5.2	28.5	4.5	16.3	35.6	9.9
50	3	9,100	4.9	6.5	8.2	14.1	39.9	26.4
51	0	--	--	--	--	--	--	--
52	0	--	--	--	--	--	--	--
53	1	4,434	21.4	12.2	20.4	20.5	23.0	2.5
54	0	--	--	--	---	--	--	--
55	2	11,770	3.5	20.2	9.7	14.0	15.4	37.2
56	0	--	--	--	--	--	--	--
57	1	4,034	30.5	8.1	24.1	7.8	25.6	3.9
Total or average	913	2,000,780	3.6	10.3	4.4	12.0	26.5	43.2

Table 20.–Distribution of veneer grade and item by thickness, No. 1 Peeler grade logs

Veneer item	Veneer grade						Total, all grades	Below grade veneer volume
	A	A patch	B	B patch	C	D		
	- - - - - - - - - - - - - - Percent - - - - - - - - - - - - - -						- - Square feet, 3/8-inch basis - -	
Full sheets:								
1/10-inch	5	27	10	26	23	9	57,326	294
1/8-inch	--	--	--	--	--	--	0	0
1/5-inch	--	--	--	--	--	--	0	0
Half sheets:								
1/10-inch	7	20	4	18	33	18	25,958	166
1/8-inch	--	--	--	--	--	--	0	0
1/5-inch	--	--	--	--	--	--	0	0
Random width:								
1/10-inch	4	5	10	9	54	18	40,577	1,651
1/8-inch	--	--	--	--	--	--	0	0
1/5-inch	--	--	--	--	--	--	0	0
							123,861	2,111

Table 21.–Distribution of veneer grade and item by thickness, No. 2 Peeler grade logs

Veneer item	Veneer grade						Total, all grades	Below grade veneer volume
	A	A patch	B	B patch	C	D		
	- - - - - - - - - - - - - Percent - - - - - - - - - - - - - -						- - Square feet, 3/8-inch basis - -	
Full sheets:								
1/10-inch	11	30	9	20	18	12	61,068	365
1/8-inch	--	--	--	--	--	--	0	0
1/5-inch	--	--	--	--	--	--	0	0
Half sheets:								
1/10-inch	6	18	6	11	32	27	41,067	1,481
1/8-inch	--	--	--	--	- -	--	0	0
1/5-inch	0	0	0	0	1 0	0	5	0
Random width:								
1/10-inch	4	6	10	9	47	24	50,045	2,614
1/8-inch	--	--	--	--	--	--	0	0
1/5-inch	--	--	--	--	--	--	0	0
							152,185	4,460

Table 22.–Distribution of veneer grade and item by thickness, No. 3 Peeler grade logs

Veneer item	Veneer grade						Total, all grades	Below grade veneer volume
	A	A patch	B	B patch	C	D		
	- - - - - - - - - - - - - - Percent - - - - - - - - - - - - - -						- - Square feet, 3/8-inch basis - -	
Full sheets:								
1/10-inch	6	25	4	21	20	24	201,988	1,446
1/8-inch	4	17	7	48	21	3	10,437	0
1/5-inch	--	--	--	--	--	--	0	0
Half sheets:								
1/10-inch	5	16	4	14	27	34	104,266	5,406
1/8-inch	13	17	14	28	24	4	6,160	36
1/5-inch	0	0	0	0	0	21	2,152	27
Random width:								
1/10-inch	3	6	9	8	41	33	135,107	7,620
1/8-inch	8	1	11	11	58	11	10,482	22
1/5-inch	--	--	--	--	--	--	0	0
Total							470,592	14,557

Table 23.–Distribution of veneer grade and item by thickness, Special Peeler grade logs

Veneer item	Veneer grade						Total, all grades	Below grade veneer volume
	A	A patch	B	B patch	C	D		
	- - - - - - - - - - - - - - Percent - - - - - - - - - - - - - -						- - Square feet, 3/8-inch basis - -	
Full sheets:								
1/10-inch	1	15	3	16	45	20	56,416	205
1/8-inch	0	5	0	16	50	29	6,834	0
1/5-inch	--	--	--	--	--	--	0	0
Half sheets:								
1/10-inch	1	9	2	15	46	27	21,052	551
1/8-inch	2	8	1	29	48	12	2,723	36
1/5-inch	0	0	0	0	92	8	3,038	20
Random width								
1/10-inch	2	4	7	7	54	26	27,991	1,088
1/8-inch	1	0	1	7	72	19	4,910	4
1/5-inch	--	--	--	--	--	--	0	0
Total							122,964	1,904

Table 24.–Distribution of veneer grade and item by thickness, No. 2 Sawmill grade logs

Veneer item	Veneer grade						Total, all grades	Below grade veneer volume
	A	A patch	B	B patch	C	D		
	— — — — — — — — — — — Percent — — — — — — — — — — —						— — Square feet, 3/8-inch basis — —	
Full sheets:								
1/10-inch	2	9	2	11	14	62	299,809	5,764
1/8-inch	5	9	5	28	13	42	58,844	713
1/5-inch	--	--	--	--	--	--	0	0
Half sheets:								
1/10-inch	3	8	2	9	17	61	273,116	66,837
1/8-inch	8	8	8	26	15	35	32,263	1,322
1/5-inch	0	0	0	0	74	26	21,123	134
Random width:								
1/10-inch	2	3	4	5	35	51	226,204	51,684
1/8-inch	5	2	6	8	37	42	59,030	800
1/5-inch	--	--	--	--	--	--	0	0
Total							970,389	127,254

Table 25.–Distribution of veneer grade and item by thickness, No. 3 Sawmill grade logs

Veneer item	Veneer grade						Total, all grades	Below grade veneer volume
	A	A patch	B	B patch	C	D		
	— — — — — — — — — — — Percent — — — — — — — — — — —						— — Square feet, 3/8-inch basis — —	
Full sheets:								
1/10-inch	1	4	2	5	7	81	26,556	1,099
1/8-inch	0	0	0	4	1	95	7,376	226
1/5-inch	--	--	--	--	--	--	0	0
Half sheets:								
1/10-inch	4	5	1	5	7	78	50,786	41,006
1/8-inch	1	2	1	3	3	90	6,120	772
1/5-inch	0	0	0	0	42	58	6,455	54
Random width:								
1/10-inch	2	1	4	3	24	66	50,686	19,964
1/8-inch	1	1	1	3	11	83	12,810	656
1/5-inch	--	--	--	--	--	--	0	0
Total							160,789	63,777

Table 26.–Distribution of veneer grade and item by thickness, all logs combined

Veneer item	Veneer grade						Total, all grades	Below grade veneer volume
	A	A patch	B	B patch	C	D		
	— — — — — — — — — — — Percent — — — — — — — — — — —						— — Square feet, 3/8-inch basis — —	
Full sheets:								
1/10-inch	4	17	4	16	19	40	703,163	9,173
1/8-inch	4	7	5	27	16	41	83,491	939
1/5-inch	--	--	--	--	--	--	0	0
Half sheets:								
1/10-inch	4	11	3	11	21	50	516,245	115,447
1/8-inch	7	8	7	23	17	38	47,266	2,166
1/5-inch	0	0	0	0	69	31	32,773	235
Random width:								
1/10-inch	2	4	7	6	39	42	530,610	84,621
1/8-inch	5	2	5	8	38	42	87,232	1,482
1/5-inch	--	--	--	--	--	--	0	0
Total							2,000,780	214,063

APPENDIX B

Individual Peeler Blocks

Table 27.–Log scale, veneer tally, and cubic volumes by scaling diameter, No. 1 Peeler grade veneer blocks

Block scaling diameter (inches)	Number of blocks	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		– – – – Board feet – – –		Square feet		– – – –Cubic feet– – –		Percent	– – – – – – Cubic feet – – – – – – –		
30	2	660	490	1,894	3.87	95.79	59.18	61.78	0.21	11.04	25.36
31	0	--	--	--	--	--	--	--	--	--	--
32	3	1,110	870	2,894	3.33	164.94	93.67	56.79	2.38	14.35	54.55
33	2	780	700	2,223	3.18	110.05	69.60	63.24	0	10.03	30.42
34	2	800	750	2,023	2.70	113.49	63.82	56.23	1.59	8.32	39.76
35	5	2,200	1,760	5,253	2.98	306.14	163.21	53.31	1.07	20.06	121.80
36	6	2,760	2,420	8,052	3.33	407.39	248.84	61.08	1.33	32.61	124.61
37	0	--	--	--	--	--	--	--	--	--	--
38	4	2,160	1,760	4,776	2.71	296.18	149.60	50.51	.85	31.53	114.20
39	2	1,120	1,040	3,528	3.39	163.05	105.15	64.49	1.64	17.78	38.48
40	4	2,400	2,080	5,763	2.77	325.58	176.46	54.20	.80	14.84	133.48
41	2	1,280	830	2,065	2.49	166.21	62.53	37.62	.44	49.96	53.28
42	2	1,340	1,140	3,738	3.28	169.55	113.27	66.81	0	6.88	49.40
43	4	2,800	2,300	7,467	3.25	355.12	226.30	63.72	2.43	17.16	109.23
44	2	1,480	1,280	3,138	2.45	192.40	95.09	49.42	0	21.85	75.46
45	1	760	560	2,066	3.69	98.97	62.71	63.36	0	7.91	28.35
46	1	790	400	1,732	4.33	105.57	56.87	53.87	8.32	6.42	33.96
47	0	--	--	--	--	--	--	--	--	--	--
48	2	1,720	1,430	3,994	2.79	236.46	131.12	55.45	5.14	12.32	87.88
49	1	900	760	1,880	2.47	117.71	58.74	49.90	.54	3.05	55.38
50	0	--	--	--	--	--	--	--	--	--	--
51	1	970	860	2,054	2.39	144.19	67.38	46.73	4.02	5.83	66.96
52	1	1,010	890	3,031	3.41	164.79	88.87	53.93	5.64	11.09	59.19
53	0	--	--	--	--	--	--	--	--	--	--
54	0	--	--	--	--	--	--	--	--	--	--
55	1	1,130	790	2,659	3.37	169.20	87.27	51.58	4.17	8.22	69.54
56	0	--	--	--	--	--	--	--	--	--	--
57	0	--	--	--	--	--	--	--	--	--	--
58	0	--	--	--	--	--	--	--	--	--	--
59	1	1,310	710	1,596	2.25	174.16	48.33	27.75	0	16.90	108.93
Total or average	49	29,480	23,820	71,826	3.02	4,076.94	2,228.01	54.65	40.57	328.14	1,480.22

Table 28.–Log scale, veneer tally, and cubic volumes by scaling diameter, No. 2 Peeler grade veneer blocks

Block scaling diameter (inches)	Number of blocks	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		– – – – Board feet – – – –		Square feet		– – – – Cubic feet – – – –		Percent	– – – – – – Cubic feet – – – – – –		
30	4	1,320	1,080	2,884	2.67	179.94	89.47	49.72	0.15	12.92	77.40
31	2	720	720	2,154	2.99	102.30	64.20	62.76	2.65	6.97	28.48
32	6	2,220	1,910	5,327	2.79	306.10	170.23	55.61	2.48	34.09	99.30
33	5	1,950	1,880	5,772	3.07	271.71	177.37	65.28	.27	19.56	74.51
34	7	2,800	2,470	8,126	3.29	421.89	254.12	60.23	1.66	22.94	143.17
35	4	1,760	1,540	5,309	3.45	242.10	161.05	66.52	2.83	11.30	66.92
36	3	1,380	1,180	3,509	2.97	195.36	108.52	55.55	.44	24.54	61.86
37	2	1,020	900	3,081	3.42	136.26	93.91	68.92	.14	5.98	36.23
38	1	540	510	1,774	3.48	76.05	53.78	70.72	0	2.47	19.80
39	4	2,240	2,070	6,133	2.96	302.85	185.86	61.37	0	25.84	91.15
40	6	3,600	2,770	8,426	3.04	484.84	255.71	52.74	2.11	31.06	195.96
41	3	1,920	1,760	5,518	3.14	267.89	157.32	62.46	.54	9.48	90.55
42	1	670	640	1,971	3.08	85.10	59.75	70.21	0	10.74	14.61
43	2	1,400	1,150	3,516	3.06	214.79	106.56	49.61	0	33.00	75.23
44	4	2,960	2,310	6,286	2.72	396.06	191.47	48.34	.15	20.32	184.12
45	2	1,520	1,430	3,166	2.21	193.35	97.80	50.58	.28	6.59	88.68
46	1	790	700	1,827	2.61	101.11	55.33	0	.56	2.61	42.61
47	0	--	--	--	--	--	--	--	--	--	--
48	2	1,720	1,530	4,246	2.78	228.06	139.35	61.10	1.81	11.49	75.41
49	2	1,800	1,210	4,962	4.10	259.44	162.13	62.49	1.59	20.85	74.87
50	1	940	790	2,614	3.31	139.13	85.78	61.65	.56	5.83	46.96
51	1	970	820	1,984	2.42	135.11	62.05	45.93	0	6.92	66.14
52	0	--	--	--	--	--	--	--	--	--	--
53	1	1,050	730	2,438	3.34	158.23	73.86	46.68	0	15.68	68.69
Total or average	64	35,290	30,100	91,023	3.02	4,897.67	2,815.62	57.49	18.22	341.18	1,722.65

Table 29.–Log scale, veneer tally, and cubic volumes by scaling diameter, No. 3 Peeler grade veneer blocks

Block scaling diameter (inches)	Number of blocks	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		- - - - Board feet - - - -		Square feet		- - - - Cubic feet - - -		Percent	- - - - - - Cubic feet - - - - - -		
24	23	4,830	4,690	13,606	2.90	681.80	421.44	61.81	3.14	62.44	194.78
25	37	8,510	7,830	22,574	2.88	1,206.38	696.24	57.71	11.33	126.38	372.43
26	25	6,250	5,650	16,489	2.92	870.39	507.99	58.36	6.68	88.62	267.10
27	30	8,100	7,610	22,458	2.95	1,159.59	685.11	59.08	10.17	106.92	357.39
28	21	6,090	5,660	15,723	2.78	833.67	483.68	58.02	9.60	111.93	228.46
29	24	7,400	6,790	20,483	3.02	1,034.54	626.70	60.58	9.38	68.95	329.51
30	19	6,270	5,790	16,624	2.87	887.37	512.24	57.73	13.38	61.97	299.78
31	24	8,640	7,370	20,222	2.74	1,170.75	625.10	53.39	10.75	114.40	420.50
32	20	7,400	6,600	19,274	2.92	1,030.74	595.77	57.80	14.21	92.46	328.30
33	21	8,190	7,080	22,588	3.19	1,161.30	703.24	60.56	8.54	71.11	378.41
34	23	9,200	8,100	23,991	2.96	1,338.01	733.39	54.81	8.21	131.08	465.33
35	19	8,360	7,440	22,802	3.06	1,175.73	698.44	59.40	10.43	96.49	370.37
36	18	8,280	7,300	23,492	3.22	1,216.69	717.00	58.93	11.66	93.27	394.76
37	10	5,100	4,320	13,611	3.15	705.26	419.92	59.54	8.16	35.29	241.89
38	13	7,020	6,020	19,258	3.20	969.27	588.76	60.74	9.20	53.62	317.69
39	15	8,400	7,440	22,538	3.03	1,186.82	693.36	58.42	14.37	64.64	414.45
40	7	4,200	3,280	10,106	3.08	610.13	305.41	50.06	11.03	46.01	247.68
41	9	5,760	4,440	13,349	3.01	765.56	414.69	54.17	15.32	57.45	278.10
42	9	6,030	4,420	14,825	3.35	855.68	460.03	53.76	11.87	66.66	317.12
43	7	4,900	4,190	11,798	2.82	666.06	367.89	55.23	6.93	35.58	255.66
44	4	2,960	2,450	7,838	3.20	389.14	244.08	57.58	5.55	19.45	120.06
45	4	3,040	2,710	8,379	3.09	401.53	262.70	65.42	3.81	18.23	116.79
46	4	3,160	2,460	8,409	3.42	431.25	265.88	61.65	12.95	16.25	136.17
47	4	3,320	2,460	8,772	3.57	430.43	276.68	64.28	3.60	17.08	133.07
48	6	5,160	4,090	11,191	2.74	680.78	339.33	49.84	9.45	57.48	274.52
49	6	5,400	3,470	14,065	4.05	770.54	434.09	56.34	17.27	64.37	254.81
50	7	6,580	5,380	15,292	2.84	856.56	466.36	54.45	8.56	76.07	305.57
51	2	1,940	1,860	5,936	3.19	306.80	179.63	58.55	3.60	6.17	117.40
52	2	2,020	1,750	5,284	3.02	293.28	166.10	56.63	1.17	12.28	113.73
53	2	2,100	1,860	5,071	2.73	280.65	151.31	53.91	4.90	18.71	105.73
54	1	1,090	900	1,659	1.84	161.53	50.34	31.16	2.45	24.77	83.97
Total or average	416	175,700	151,410	457,707	3.02	24,528.23	14,092.90	57.46	277.67	1,916.13	8,241.53

Table 30.–Log scale, veneer tally, and cubic volumes by scaling diameter, Special Peeler grade veneer blocks

Block scaling diameter (inches)	Number of blocks	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		- - - - Board feet - - -		Square feet		- - - -Cubic feet- - - -		Percent	- - - - - - Cubic feet - - - - - -		
18	23	· 2,530	2,480	7,364	2.97	393.64	226.21	57.47	1.54	62.42	103.47
19	28	3,360	3,210	9,242	2.88	532.11	284.19	53.41	2.45	87.50	157.97
20	32	4,480	4,370	12,148	2.78	582.89	371.44	54.39	5.09	92.24	214.12
21	30	4,500	4,350	13,394	3.08	683.83	407.32	59.56	8.66	87.57	180.28
22	32	5,440	5,310	15,658	2.95	807.01	480.73	59.57	3.60	91.42	231.26
23	35	6,650	6,430	18,344	2.85	961.54	565.59	58.82	7.25	106.02	282.68
Total or average	180	26,960	26,150	76,150	2.91	4,061.02	2,335.48	57.51	28.59	527.17	1,169.78

31

Table 31.–Log scale, veneer tally, and cubic volumes by scaling diameter, No. 2 Sawmill grade veneer blocks

Block scaling diameter (inches)	Number of blocks	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		- - - -Board feet- - - -		*Square feet*		*- - - - Cubic feet - - - -*		*Percent*	*- - - - - - Cubic feet- - - - -*		
12	32	1,280	1,250	2,804	2.24	247.79	86.79	35.03	4.09	88.45	68.46
13	44	2,200	2,150	5,209	2.42	397.06	161.01	40.55	12.00	125.10	98.95
14	63	3,750	3,680	9,235	2.51	649.19	284.69	43.85	11.21	189.98	163.31
15	77	5,390	5,230	13,617	2.60	914.48	418.12	45.72	19.17	225.42	251.77
16	80	6,400	6,270	17,178	2.74	1,074.26	527.89	49.14	24.89	228.07	293.41
17	95	8,550	8,410	22,880	2.72	1,420.90	705.91	49.68	41.58	271.61	401.80
18	75	8,250	7,990	20,930	2.62	1,266.75	643.34	52.44	38.79	211.89	372.73
19	77	9,180	9,070	24,395	2.69	1,420.54	752.75	52.99	52.56	220.73	394.50
20	65	9,100	8,840	24,048	2.72	1,334.33	742.98	55.68	41.72	190.86	358.77
21	65	9,750	9,380	26,440	2.82	1,484.08	816.45	55.01	62.19	188.96	416.48
22	64	10,880	10,580	30,379	2.87	1,603.77	933.40	58.20	55.74	184.81	429.82
23	59	11,210	10,920	29,235	2.68	1,582.15	902.85	57.06	50.52	193.16	435.62
24	67	14,070	13,380	36,867	2.76	1,925.96	1,136.68	59.02	74.17	212.28	502.83
25	63	14,490	13,740	37,816	2.75	2,003.94	1,163.92	58.08	91.22	186.78	562.02
26	49	12,190	11,400	31,846	2.79	1,683.84	987.73	58.66	67.71	155.48	472.92
27	52	14,040	12,910	35,338	2.74	1,911.83	1,095.16	57.28	111.48	169.02	536.17
28	50	14,500	13,770	38,544	2.80	1,975.10	1,189.74	60.24	92.54	155.75	537.07
29	54	16,740	15,300	43,207	2.82	2,281.36	1,333.97	58.47	133.83	171.32	642.24
30	52	17,160	15,370	41,817	2.72	2,328.79	1,288.15	55.31	109.30	186.85	744.49
31	44	15,840	13,790	39,166	2.84	2,157.91	1,203.39	55.77	103.06	152.98	698.48
32	47	17,390	15,240	44,619	2.93	2,394.70	1,378.51	57.56	161.96	193.17	661.06
33	35	13,650	12,380	36,441	2.94	1,902.44	1,115.13	58.62	71.82	133.96	581.53
34	33	13,200	12,180	35,955	2.95	1,916.52	1,109.34	57.88	96.15	114.04	596.99
35	27	11,880	10,730	31,675	2.95	1,640.50	965.90	58.88	87.17	107.31	480.12
36	23	10,580	9,610	28,670	2.98	1,500.80	879.61	58.61	107.94	72.32	440.93
37	30	15,300	13,460	41,111	3.05	2,056.51	1,259.51	61.24	118.29	109.85	568.86
38	14	7,560	6,280	17,097	2.72	1,003.24	527.08	52.54	102.61	64.09	309.46
39	12	6,720	5,490	16,876	3.07	927.08	533.26	57.52	104.10	53.45	236.27
40	18	10,800	9,240	27,296	2.95	1,452.20	839.31	57.80	67.17	65.97	479.75
41	14	8,960	7,630	20,789	2.72	1,211.25	641.12	52.93	79.20	76.22	414.71
42	16	10,720	9,260	23,707	2.56	1,388.74	732.46	52.74	95.65	64.40	496.23
43	16	11,200	9,230	27,031	2.93	1,493.84	840.05	56.23	50.16	117.80	485.83
44	11	8,140	6,920	18,433	2.66	1,064.87	568.26	53.36	36.92	110.89	348.80
45	6	4,560	3,970	9,795	2.47	624.22	309.04	49.51	30.89	46.10	238.19
46	9	7,110	5,990	16,125	2.69	928.87	496.85	53.49	104.24	44.23	283.55
47	10	8,300	7,080	21,038	2.97	1,096.16	646.56	58.98	49.48	55.33	344.79
48	3	2,580	2,250	6,256	2.78	330.20	193.42	58.58	34.10	20.31	82.37
49	5	4,500	4,150	9,240	2.23	586.70	280.45	47.80	17.91	69.35	218.99
50	4	3,760	2,990	8,229	2.75	510.66	251.02	49.16	7.71	54.99	196.94
51	0	--	--	--	--	--	--	--	--	--	--
52	0	--	--	--	--	--	--	--	--	--	--
53	1	1,050	350	1,537	4.39	146.01	46.48	31.83	4.98	4.87	89.68
54	0	--	--	--	--	--	--	--	--	--	--
55	1	1,130	570	2,153	3.78	149.56	65.28	43.65	10.18	3.03	71.07
56	1	1,180	590	2,252	3.82	155.22	68.22	43.95	5.15	7.91	73.94
Total or average	1,563	385,240	349,020	977,276	2.80	54,144.32	30,121.78	55.63	2,641.55	5,299.09	16,081.90

Table 32.–Log scale, veneer tally, and cubic volumes by scaling diameter, No. 3 Sawmill grade veneer blocks

Block scaling diameter (inches)	Number of blocks	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		- - - -Board feet- - - -		Square feet		- - - - Cubic feet - - - -		Percent	- - - - - - Cubic feet - - - - - -		
9	1	10	10	0	0	2.86	0	0	0	2.86	0
10	1	30	30	72	2.40	6.10	2.20	36.07	0	1.83	2.07
11	15	450	410	925	2.26	99.14	28.48	28.73	1.46	40.36	28.84
12	11	440	400	784	1.96	92.81	24.17	26.04	3.34	33.11	32.19
13	13	650	630	1,491	2.37	132.37	44.64	33.72	8.37	33.12	46.24
14	24	1,410	1,260	2,553	2.03	254.94	79.15	31.05	14.14	72.13	89.52
15	36	2,470	2,270	5,359	2.36	456.39	164.65	36.08	31.65	106.38	153.71
16	33	2,600	2,500	5,304	2.12	454.80	162.92	35.82	47.83	96.82	147.23
17	42	3,740	3,420	8,672	2.54	646.13	267.71	41.43	55.59	114.22	208.61
18	34	3,740	3,260	6,986	2.14	614.07	217.26	35.38	47.90	109.77	239.14
19	36	4,320	4,010	7,585	1.89	686.01	233.48	34.03	83.85	116.85	251.83
20	41	5,740	5,090	10,865	2.13	902.97	335.47	37.15	97.54	136.58	333.38
21	46	6,760	6,180	13,405	2.17	1,036.66	414.05	39.94	84.27	132.63	405.71
22	36	6,120	5,460	11,435	2.09	903.77	354.38	39.21	96.46	115.41	337.52
23	35	6,650	6,180	13,129	2.12	950.88	406.91	42.79	124.61	97.39	321.97
24	43	8,970	8,240	15,923	1.93	1,269.21	497.79	39.22	183.51	134.68	453.23
25	33	7,560	6,660	13,694	2.06	1,075.57	425.26	39.54	96.34	114.09	439.88
26	37	9,250	8,520	18,546	2.18	1,292.08	575.42	44.53	189.79	103.07	423.80
27	34	9,180	7,830	15,432	1.97	1,286.10	481.02	37.40	132.88	152.12	520.08
28	25	7,250	6,830	13,931	2.04	996.74	434.29	43.57	154.77	80.63	327.05
29	22	6,820	5,920	12,305	2.08	943.68	382.57	40.54	108.16	90.48	362.47
30	19	6,270	5,940	12,623	2.13	848.60	396.73	46.75	129.23	60.90	261.74
31	26	9,360	8,160	16,007	1.96	1,263.37	496.89	39.33	144.11	84.62	537.75
32	16	5,920	5,110	9,449	1.85	843.41	297.09	35.22	161.38	100.39	284.55
33	20	7,800	6,660	13,935	2.09	1,074.14	431.05	40.13	168.01	65.97	409.11
34	10	4,000	3,350	6,058	1.81	599.77	191.26	31.89	108.64	48.63	251.24
35	8	3,520	2,980	7,359	2.47	489.89	225.72	46.08	70.41	24.65	169.11
36	10	4,490	3,610	7,522	2.08	616.17	232.52	37.74	85.54	90.32	207.79
37	10	5,100	4,070	8,405	2.07	678.24	264.81	39.04	90.84	53.82	268.77
38	11	5,940	5,140	11,590	2.25	789.52	364.55	46.17	140.07	47.65	237.25
39	6	3,360	3,020	6,556	2.17	450.98	207.84	46.09	77.94	23.73	141.47
40	12	7,200	6,220	12,429	2.00	951.11	385.29	40.51	179.70	66.75	319.37
41	3	1,920	1,730	4,672	2.70	247.97	146.57	59.11	18.59	16.41	66.40
42	6	4,020	3,070	7,765	2.53	509.68	246.62	48.39	103.41	36.57	123.08
43	3	2,100	1,850	2,373	1.28	260.89	74.34	28.49	112.65	14.07	59.83
44	1	740	670	583	.87	94.61	17.18	18.16	46.87	5.26	25.30
45	2	1,520	770	2,154	2.80	200.48	70.52	35.18	62.63	10.93	56.40
46	2	1,580	1,370	1,662	1.21	200.29	51.09	25.51	31.75	19.86	97.59
47	1	830	760	1,645	2.16	112.40	49.83	44.33	1.56	7.89	53.12
48	1	860	860	1,201	1.40	107.23	39.02	36.39	37.52	3.63	27.06
49	1	900	650	1,166	1.79	113.17	37.94	33.52	44.57	4.10	26.56
50	1	940	670	1,034	1.54	128.38	33.55	26.13	48.84	3.79	42.20
51	0	---	---	---	---	---	---	---	---	---	---
52	0	---	---	---	---	---	---	---	---	---	---
53	1	1,050	760	1,224	1.61	138.27	39.79	28.78	45.52	3.78	49.18
54	0	---	---	---	---	---	---	---	---	---	---
55	1	1,130	560	1,187	2.12	145.40	38.60	26.55	32.99	3.79	70.02
56	0	---	---	---	---	---	---	---	---	---	---
57	0	---	---	---	---	---	---	---	---	---	---
58	1	1,260	630	2,277	3.61	170.91	73.95	43.27	15.46	5.46	76.04
Total or average	770	175,970	153,720	319,272	2.08	25,138.16	9,944.57	39.56	3,520.69	2,687.50	8,985.40

Table 33.—Log scale, veneer tally, and cubic volumes by scaling diameter, all veneer blocks

Block scaling diameter (inches)	Number of blocks	Scale volume		Veneer tally		Volume					
		Gross	Net	Volume, 3/8-inch basis	Recovery ratio	Block	Veneer	Veneer recovery	Below grade veneer	Core	Residue
		- - - Board feet - - -		Square feet		- - - - Cubic feet - - - -		Percent	- - - - - Cubic feet - - - - - -		
6	1	10	10	0	0	2.86	0	0	0	2.86	0
7	1	30	30	72	2.40	6.10	2.20	36.07	0	1.83	2.07
8	15	450	410	925	2.26	99.14	28.48	28.73	1.46	40.36	28.84
9	43	1,720	1,650	3,588	2.17	340.60	110.96	32.58	7.43	121.56	100.65
10	57	2,850	2,780	6,700	2.41	529.43	205.65	38.84	20.37	158.22	145.19
11	87	5,160	4,940	11,788	2.39	904.13	363.84	40.24	25.35	262.11	252.83
12	113	7,860	7,500	18,976	2.53	1,370.87	582.77	42.51	50.82	331.80	405.48
13	113	9,000	8,770	22,482	2.56	1,529.06	690.81	45.18	72.72	324.89	440.64
14	137	12,290	11,830	31,552	2.67	2,067.03	973.62	47.10	97.17	385.83	610.41
15	132	14,520	13,730	35,280	2.57	2,274.46	1,086.81	47.78	88.23	384.08	715.34
16	141	16,860	16,290	41,222	2.53	2,638.66	1,270.42	48.15	138.86	425.08	804.30
17	138	19,320	18,300	47,061	2.57	2,920.19	1,449.89	49.65	144.35	419.68	906.27
18	141	21,010	19,910	53,239	2.67	3,204.57	1,637.82	51.11	155.12	409.16	1,002.47
19	132	22,440	21,350	57,472	2.69	3,314.55	1,768.51	53.36	155.80	391.64	998.60
20	129	24,510	23,530	60,708	2.58	3,494.57	1,875.35	53.66	182.38	396.57	1,040.27
21	133	27,870	26,310	66,396	2.52	3,876.97	2,055.91	53.03	260.82	409.40	1,150.84
22	133	30,560	28,230	74,084	2.62	4,285.89	2,285.42	53.32	198.89	427.25	1,374.33
23	111	27,690	25,570	66,881	2.62	3,846.31	2,071.14	53.85	264.18	347.17	1,163.82
24	116	31,320	28,350	73,228	2.58	4,357.52	2,261.29	51.89	254.53	428.06	1,413.64
25	96	27,840	26,260	68,198	2.60	3,805.51	2,107.71	55.39	256.91	348.31	1,092.58
26	100	30,960	28,010	75,995	2.71	4,259.58	2,343.24	55.01	251.37	330.75	1,334.22
27	96	31,680	28,670	75,842	2.65	4,340.49	2,345.77	54.04	252.27	333.68	1,408.77
28	96	34,560	30,040	77,549	2.58	4,694.33	2,389.58	50.90	260.57	358.97	1,685.21
29	92	34,040	29,730	81,563	2.74	4,739.89	2,535.27	53.49	342.41	434.45	1,427.76
30	83	32,370	28,700	80,959	2.82	4,519.64	2,496.39	55.23	248.64	300.63	1,473.98
31	75	30,000	26,850	76,153	2.84	4,389.68	2,351.93	53.58	216.25	325.01	1,496.49
32	63	27,720	24,450	72,398	2.96	3,854.36	2,214.32	57.45	171.91	259.81	1,208.32
33	60	27,490	24,120	71,245	2.95	3,936.41	2,186.49	55.54	206.91	313.06	1,229.95
34	52	26,520	22,750	66,208	2.91	3,576.27	2,038.15	56.99	217.43	204.94	1,115.75
35	43	23,220	19,710	54,495	2.76	3,134.26	1,683.77	53.72	252.73	199.36	998.40
36	39	21,840	19,060	55,631	2.92	3,030.78	1,725.47	56.93	198.05	185.44	921.82
37	47	28,200	23,590	64,020	2.71	3,823.86	1,962.18	51.31	260.81	224.63	1,376.24
38	0	--	--	--	--	--	--	--	--	--	--
39	0	--	--	--	--	--	--	--	--	--	--
40	0	--	--	--	--	--	--	--	--	--	--
41	31	19,840	16,390	46,393	2.83	2,658.88	1,432.23	53.87	114.09	209.52	903.04
42	34	22,780	18,530	52,006	2.81	3,008.75	1,612.13	53.58	210.93	185.25	1,000.44
43	32	22,400	18,720	52,185	2.79	2,990.70	1,615.14	54.00	172.17	217.61	985.78
44	22	16,280	13,630	36,278	2.66	2,137.08	1,116.08	52.22	89.49	177.77	753.74
45	15	11,400	9,440	25,560	2.71	1,518.55	802.77	52.86	97.61	89.76	528.41
46	17	13,430	10,920	29,755	2.72	1,767.09	926.02	52.40	157.82	89.37	593.88
47	15	12,450	10,300	31,455	3.05	1,638.99	973.07	59.37	54.64	80.30	530.98
48	14	12,040	10,160	26,888	2.65	1,582.73	842.24	53.21	88.02	105.23	547.24
49	15	13,500	10,240	31,313	3.06	1,847.56	973.35	52.68	81.88	161.72	630.61
50	13	12,220	9,830	27,169	2.76	1,634.73	836.71	51.18	65.67	140.68	591.67
51	4	3,880	3,540	9,974	2.82	586.10	309.06	52.73	7.62	18.92	250.50
52	3	3,030	2,640	8,315	3.15	458.07	254.97	55.66	6.81	23.37	172.92
53	5	5,250	3,700	10,270	2.78	723.16	311.44	43.07	55.40	43.04	313.28
54	1	1,090	900	1,659	1.84	161.53	50.34	31.16	2.45	24.77	83.97
55	3	3,390	1,920	5,999	3.12	464.16	191.15	41.18	47.34	15.04	210.63
56	1	1,180	590	2,252	3.82	155.22	68.22	43.95	5.15	7.91	73.94
57	0	--	--	--	--	--	--	--	--	--	--
58	1	1,260	630	2,277	3.61	170.91	73.95	43.27	15.46	5.46	76.04
59	1	1,310	710	1,596	2.25	174.16	48.33	27.75	0	16.90	108.93
60	0	--	--	--	--	--	--	--	--	--	--
Total or average	3,042	828,640	734,220	1,993,254	2.71	116,846.34	61,538.36	52.67	6,527.29	11,099.21	37,681.48

Table 34.–Veneer recovery by block scaling diameter, No. 1 Peeler grade blocks

Block scaling diameter (inches)	Number of blocks	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	- - - - - - - - - - - *Percent* - - - - - - - - - - -					
30	2	1,894	21.3	20.5	5.1	23.2	24.1	5.8
31	0	--	--	--	--	--	--	--
32	3	2,894	13.3	12.8	2.7	7.0	39.6	24.6
33	2	2,223	.4	3.9	1.5	18.1	48.9	27.2
34	2	2,023	0	4.7	.5	11.6	36.8	46.4
35	5	5,253	6.0	9.4	4.3	16.4	46.0	17.9
36	6	8,052	4.5	9.8	6.0	27.8	41.7	10.2
37	0	--	--	--	--	--	--	--
38	4	4,776	.2	4.9	5.2	24.6	52.7	12.4
39	2	3,528	7.5	3.8	24.3	16.8	43.6	4.0
40	4	5,763	1.9	7.4	20.9	27.6	33.8	8.4
41	2	2,065	1.7	21.5	14.9	15.0	28.3	18.6
42	2	3,738	4.4	21.3	9.2	36.1	24.4	4.6
43	4	7,467	1.5	31.1	10.6	22.4	18.8	15.6
44	2	3,138	3.0	10.5	12.5	29.2	33.9	10.9
45	1	2,066	0	8.6	3.0	36.3	43.8	8.3
46	1	1,732	0	24.9	0	15.7	24.8	34.6
47	0	--	--	--	--	--	--	--
48	2	3,994	0	35.8	0	19.1	25.1	20.0
49	1	1,880	27.0	11.4	16.1	12.3	31.7	1.5
50	0	--	--	--	--	--	--	--
51	1	2,054	0	8.3	0	13.4	74.4	3.9
52	1	3,031	2.2	4.1	19.0	2.5	60.9	11.3
53	0	--	--	--	--	--	--	--
54	0	--	--	--	--	--	--	--
55	1	2,659	0	19.7	0	15.8	51.6	12.9
56	0	--	--	--	--	--	--	--
57	0	--	--	--	--	--	--	--
58	0	--	--	--	--	--	--	--
59	1	1,596	24.2	4.5	9.5	13.2	40.2	8.4
Total or average	49	71,826	4.5	14.0	8.6	20.9	38.2	13.8

Table 35.–Veneer recovery by block scaling diameter, No. 2 Peeler grade blocks

Block scaling diameter (inches)	Number of blocks	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	- - - - - - - - - - - *Percent* - - - - - - - - - - -					
30	4	2,884	7.7	9.6	9.2	16.5	50.1	6.9
31	2	2,154	3.0	8.9	3.3	25.0	50.1	9.7
32	6	5,327	.8	13.0	3.4	12.0	39.4	31.4
33	5	5,772	5.6	8.4	3.7	10.1	42.5	29.7
34	7	8,126	1.2	7.8	6.4	14.3	52.2	18.1
35	4	5,309	15.4	37.6	4.6	10.9	18.4	13.1
36	3	3,509	.9	12.8	6.0	18.3	43.4	18.6
37	2	3,081	6.9	39.5	8.0	13.1	17.6	14.9
38	1	1,774	15.4	26.3	3.6	17.8	19.7	17.2
39	4	6,133	5.2	13.8	6.6	20.7	41.7	12.0
40	6	8,426	2.8	8.6	7.5	18.4	41.4	21.3
41	3	5,518	29.0	18.1	17.6	14.1	16.8	4.4
42	1	1,971	0	4.4	.3	43.9	24.3	27.1
43	2	3,516	0	1.6	4.6	24.9	52.3	16.6
44	4	6,286	3.8	36.3	13.5	14.9	26.9	4.6
45	2	3,166	11.8	10.3	23.4	11.5	31.2	16.8
46	1	1,827	6.8	20.0	19.8	13.9	32.8	6.7
47	0	--	--	--	--	--	--	--
48	2	4,246	0	38.2	0	20.9	25.9	15.0
49	2	4,962	4.6	23.1	10.3	22.0	27.7	12.3
50	1	2,614	0	42.1	0	14.2	35.5	8.2
51	1	1,984	21.1	10.8	11.8	8.5	45.0	2.8
52	0	--	--	--	--	--	--	--
53	1	2,438	34.7	10.5	33.6	4.2	16.0	1.0
Total or average	64	91,023	7.1	18.1	8.5	16.3	35.1	14.9

Table 36.–*Veneer recovery by block scaling diameter, No. 3 Peeler grade blocks*

Block scaling diameter (inches)	Number of blocks	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	- - - - - - - - - - - Percent - - - - - - - - - - -					
24	23	13,606	2.8	13.5	4.0	14.2	55.6	9.9
25	37	22,574	2.3	10.8	3.9	18.5	45.3	19.2
26	25	16,489	3.9	16.4	4.6	13.2	40.4	21.5
27	30	22,458	1.3	9.1	4.0	18.7	43.2	23.7
28	21	15,723	3.9	17.9	5.0	17.2	36.4	19.6
29	24	20,483	2.2	16.0	5.8	12.5	38.0	25.5
30	19	16,624	3.3	16.1	2.8	17.0	36.7	24.1
31	24	20,222	4.1	12.7	5.8	15.1	33.6	28.7
32	20	19,274	7.3	15.1	6.4	16.1	31.8	23.3
33	21	22,588	4.9	16.5	4.3	21.3	27.2	25.8
34	23	23,991	7.4	17.5	8.0	14.8	25.2	27.1
35	19	22,802	6.6	19.7	6.5	15.9	31.4	19.9
36	18	23,492	10.4	13.1	7.8	16.7	33.5	18.5
37	10	13,611	4.2	20.5	5.4	13.5	37.3	19.1
38	13	19,258	8.8	14.1	5.5	13.1	42.0	16.5
39	15	22,538	4.2	14.3	5.2	12.3	39.9	24.1
40	7	10,106	3.6	16.6	7.3	7.5	49.4	15.6
41	9	13,349	3.1	22.1	5.6	20.7	27.6	20.9
42	9	14,825	8.7	20.6	12.4	8.5	28.8	21.0
43	7	11,798	11.1	15.2	7.2	19.8	24.3	22.4
44	4	7,838	8.9	29.7	6.4	19.4	19.1	16.5
45	4	8,379	26.6	21.5	7.6	16.2	13.2	14.9
46	4	8,409	16.8	12.2	9.4	13.1	24.4	24.1
47	4	8,772	7.9	25.2	7.5	10.0	24.6	24.8
48	6	11,191	14.2	23.3	13.3	10.3	25.1	13.8
49	6	14,065	13.9	11.3	11.3	10.9	32.2	20.4
50	7	15,292	14.7	22.8	16.1	10.9	22.2	13.3
51	2	5,936	9.6	8.2	23.9	22.0	31.9	4.4
52	2	5,284	2.8	15.8	9.9	18.6	43.1	9.8
53	2	5,071	10.5	4.3	13.2	15.9	49.7	6.4
54	1	1,659	7.5	6.9	23.0	13.1	27.9	21.6
Total or average	416	457,707	6.8	16.1	7.1	15.2	34.1	20.7

Table 37.–*Veneer recovery by block scaling diameter, Special Peeler grade blocks*

Block scaling diameter (inches)	Number of blocks	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	- - - - - - - - - - - Percent - - - - - - - - - - -					
18	23	7,364	1.7	6.9	2.8	11.3	52.1	25.2
19	28	9,242	1.3	8.4	2.9	12.8	58.1	16.5
20	32	12,148	.6	11.5	3.2	12.6	56.2	15.9
21	30	13,394	.9	12.1	3.1	16.2	46.7	21.0
22	32	15,658	2.9	10.6	4.8	16.5	50.8	14.4
23	35	18,344	1.2	10.7	4.4	15.7	53.9	14.1
Total or average	180	76,150	1.5	10.4	3.7	14.7	52.7	17.0

Table 38.–*Veneer recovery by block scaling diameter, No. 2 Sawmill grade blocks*

Block scaling diameter (inches)	Number of blocks	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	– – – – – – – – – – – *Percent* – – – – – – – – – – –					
12	32	2,804	0.2	0.9	1.7	0.9	68.7	27.6
13	44	5,209	.6	.8	1.1	2.1	58.3	37.1
14	63	9,235	.6	1.5	1.9	1.8	58.6	35.6
15	77	13,617	.7	1.5	.9	3.3	47.4	46.2
16	80	17,178	.3	1.3	.9	3.6	44.6	49.3
17	95	22,880	.5	2.2	.9	4.9	34.3	57.2
18	75	20,930	0	.6	.7	3.5	33.6	61.6
19	77	24,395	.1	1.3	1.3	4.9	31.8	60.5
20	65	24,048	.2	1.4	.9	5.0	33.5	59.0
21	65	26,440	.5	2.1	1.2	5.4	31.3	59.5
22	64	30,379	.6	2.3	1.3	4.8	21.6	68.4
23	59	29,235	.4	3.0	1.1	6.0	24.8	64.7
24	67	36,867	.7	3.6	1.2	9.1	23.8	61.6
25	63	37,816	.8	3.7	1.3	11.5	26.1	56.6
26	49	31,846	.8	3.7	1.0	8.8	22.6	63.1
27	52	35,338	.4	4.3	1.6	8.6	19.7	65.4
28	50	38,544	.7	5.4	1.5	10.7	22.7	59.0
29	54	43,207	1.5	5.6	1.5	10.4	21.9	59.1
30	52	41,817	1.6	4.5	2.8	8.2	19.8	63.1
31	44	39,166	1.2	9.9	3.5	12.1	20.2	53.1
32	47	44,619	1.0	9.3	2.9	16.0	19.0	51.8
33	35	36,441	2.5	7.1	3.8	16.2	18.5	51.9
34	33	35,955	1.5	10.9	3.6	15.7	20.4	47.9
35	27	31,675	3.1	17.2	2.9	14.2	18.7	43.9
36	23	28,670	3.3	12.8	3.5	13.8	16.1	50.5
37	30	41,111	3.0	17.8	3.3	19.3	17.9	38.7
38	14	17,097	6.6	16.4	2.3	9.6	16.1	49.0
39	12	16,876	8.6	10.6	6.2	19.0	16.3	39.3
40	18	27,296	7.5	13.8	5.7	14.3	23.4	35.3
41	14	20,789	5.2	12.5	11.6	14.1	22.7	33.9
42	16	23,707	3.3	11.5	5.6	14.5	21.9	43.2
43	16	27,031	7.3	20.1	5.8	19.4	24.9	22.5
44	11	18,433	1.6	18.0	13.3	17.5	19.3	30.3
45	6	9,795	4.4	21.8	7.0	11.5	18.5	36.8
46	9	16,125	13.7	19.9	2.8	13.7	11.7	38.2
47	10	21,038	6.9	20.4	10.5	13.0	17.4	31.8
48	3	6,256	8.9	32.2	9.8	7.9	14.9	26.3
49	5	9,240	4.0	8.2	6.7	20.7	21.1	39.3
50	4	8,229	2.8	15.1	6.8	20.3	27.6	27.4
51	0	--	--	--	--	--	--	--
52	0	--	--	--	--	--	--	--
53	1	1,537	3.6	20.2	12.6	20.1	16.6	26.9
54	0	--	--	--	--	--	--	--
55	1	2,153	2.3	32.1	7.7	13.9	9.4	34.6
56	1	2,252	2.3	39.3	10.0	17.1	12.7	18.6
Total or average	1,563	977,276	2.4	8.7	3.2	11.3	23.6	50.8

Table 39.–Veneer recovery by block scaling diameter, No. 3 Sawmill grade blocks

Block scaling diameter (inches)	Number of blocks	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	- - - - - - - - - - *Percent* - - - - - - - - - -					
9	1	0	0	0	0	0	0	0
10	1	72	0	0	1.4	0	54.2	44.4
11	15	925	1.2	5.4	2.1	3.2	47.1	41.0
12	11	784	1.9	.9	.4	1.1	20.3	75.4
13	13	1,491	0	.3	.1	.3	27.3	72.0
14	24	2,553	.5	.7	.2	0	13.8	84.8
15	36	5,359	.8	.4	.3	.8	15.5	82.2
16	33	5,304	1.1	2.3	.8	1.1	12.5	82.2
17	42	8,672	.1	.3	.9	.2	13.2	85.3
18	34	6,986	1.0	.1	.6	2.3	11.8	84.2
19	36	7,585	.4	.8	.5	1.2	9.0	88.1
20	41	10,865	.4	.1	.3	.7	13.0	85.5
21	46	13,405	.7	.5	.9	1.5	16.2	80.2
22	36	11,435	.2	.3	.3	1.3	11.5	86.4
23	35	13,129	.1	1.8	1.2	3.3	14.4	79.2
24	43	15,923	.3	.3	.8	1.3	12.4	84.9
25	33	13,694	.2	1.3	.8	3.7	12.0	82.0
26	37	18,546	.5	1.7	.9	2.7	9.9	84.3
27	34	15,432	1.1	3.2	2.6	7.6	12.3	73.2
28	25	13,931	.6	1.5	1.4	5.3	14.4	76.8
29	22	12,305	.3	2.2	.7	4.4	9.6	82.8
30	19	12,623	1.7	3.4	1.6	9.2	13.1	71.0
31	26	16,007	1.9	4.3	3.7	8.2	10.8	71.1
32	16	9,449	2.5	5.5	1.5	7.1	15.1	68.3
33	20	13,935	1.9	2.9	2.1	4.2	9.7	79.2
34	10	6,058	1.2	6.3	.4	2.6	13.6	75.9
35	8	7,359	1.0	1.9	2.7	10.3	12.4	71.7
36	10	7,522	3.5	7.1	6.8	7.4	8.4	66.8
37	10	8,405	1.7	4.0	4.0	6.0	22.7	61.6
38	11	11,590	5.1	8.7	2.9	15.2	14.5	53.6
39	6	6,556	3.1	9.0	3.4	11.5	19.2	53.8
40	12	12,429	7.9	11.7	7.3	12.1	13.0	48.0
41	3	4,672	5.3	15.6	5.4	18.7	9.2	45.8
42	6	7,765	4.4	19.2	1.8	16.9	14.0	43.7
43	3	2,373	.3	12.9	1.9	10.5	17.9	56.5
44	1	583	0	0	0	0	19.6	80.4
45	2	2,154	0	12.6	0	15.2	19.5	52.7
46	2	1,662	6.7	18.8	19.1	10.3	7.6	37.5
47	1	1,645	21.8	32.7	15.2	8.0	12.6	9.7
48	1	1,201	7.8	22.1	4.5	14.9	5.4	45.3
49	1	1,166	9.6	25.1	.3	12.2	10.4	42.4
50	1	1,034	2.7	25.7	1.5	11.2	1.6	57.3
51	0	--	--	--	--	--	--	--
52	0	--	--	--	--	--	--	--
53	1	1,224	16.2	8.3	2.7	6.2	5.4	57.2
54	0	--	--	--	--	--	--	--
55	1	1,187	15.5	16.0	3.5	4.9	14.3	45.8
56	0	--	--	--	--	--	--	--
57	0	--	--	--	--	--	--	--
58	1	2,277	0	3.6	.7	5.8	16.3	73.6
Total or average	770	319,272	1.9	4.2	2.1	5.8	13.0	73.0

Table 40.–Veneer recovery by block scaling diameter, all blocks

Block scaling diameter (inches)	Number of blocks	Veneer volume, 3/8-inch basis	Recovery by veneer grade					
			A	A patch	B	B patch	C	D
		Square feet	- - - - - - - - - - *Percent* - - - - - - - - - -					
9	1	0	0	0	0	0	0	0
10	1	72	0	0	1.4	0	54.2	44.4
11	15	925	1.2	5.4	2.1	3.2	47.1	41.0
12	43	3,588	.6	.9	1.4	.9	58.1	38.1
13	57	6,700	.5	.7	.8	1.7	51.5	44.8
14	87	11,788	.6	1.3	1.5	1.4	49.0	46.2
15	113	18,976	.8	1.2	.7	2.6	38.4	56.3
16	113	22,482	.5	1.5	.9	3.0	37.1	57.0
17	137	31,552	.4	1.6	.9	3.6	28.5	65.0
18	132	35,280	.6	1.8	1.1	4.9	33.2	58.4
19	141	41,222	.5	2.8	1.5	6.0	33.5	55.7
20	138	47,061	.4	3.7	1.4	6.0	34.6	53.9
21	141	53,239	.7	4.2	1.6	7.2	31.4	54.9
22	132	57,472	1.2	4.2	2.0	7.3	27.6	57.7
23	129	60,708	.6	5.1	2.1	8.3	31.4	52.5
24	133	66,396	1.1	4.8	1.7	8.3	27.6	56.5
25	133	74,084	1.1	5.4	2.0	12.2	29.3	50.1
26	111	66,881	1.5	6.2	1.8	8.2	23.5	58.8
27	116	73,228	.8	5.6	2.5	11.5	25.3	54.3
28	96	68,198	1.4	7.5	2.3	11.1	24.1	53.6
29	100	75,995	1.5	7.9	2.5	10.0	24.3	53.8
30	96	75,842	2.7	7.5	2.9	11.0	23.7	52.2
31	96	77,549	2.2	9.5	4.1	12.4	22.6	49.2
32	92	81,563	3.1	10.6	3.6	14.4	23.6	44.7
33	83	80,959	3.2	9.0	3.6	15.1	22.0	47.1
34	75	76,153	3.3	12.1	4.9	14.1	25.2	40.4
35	63	72,398	5.1	17.4	4.2	14.3	24.0	35.0
36	60	71,245	5.7	11.9	5.7	15.9	25.3	35.5
37	52	66,208	3.3	17.6	4.1	16.1	22.5	36.4
38	43	54,495	6.8	13.3	3.9	13.6	28.2	34.2
39	39	55,631	5.7	11.8	6.6	15.4	30.9	29.6
40	47	64,020	5.8	12.6	7.9	14.5	28.8	30.4
41	31	46,393	7.3	16.6	10.1	16.5	22.3	27.2
42	34	52,006	4.9	15.7	7.0	15.8	23.0	33.6
43	32	52,185	6.5	19.0	6.6	19.9	25.3	22.7
44	22	36,278	3.6	22.8	11.5	18.2	21.9	22.0
45	15	25,560	11.9	18.4	8.3	15.3	20.5	25.6
46	17	29,755	13.0	17.9	6.5	13.5	17.1	32.0
47	15	31,455	8.0	22.4	9.9	11.9	19.1	28.7
48	14	26,888	8.3	29.5	8.0	13.0	22.0	19.2
49	15	31,313	10.1	12.8	9.7	15.7	27.3	24.4
50	13	27,169	9.2	22.4	11.2	14.0	24.4	18.8
51	4	9,974	9.9	8.7	16.6	17.5	43.3	4.0
52	3	8,315	2.6	11.6	13.2	12.7	49.5	10.4
53	5	10,270	15.9	8.6	16.7	12.6	31.5	14.7
54	1	1,659	7.5	6.9	23.0	13.1	27.9	21.6
55	3	5,999	3.9	23.4	3.5	13.0	29.0	27.2
56	1	2,252	2.3	39.3	10.0	17.1	12.7	18.6
57	0	--	--	--	--	--	--	--
58	1	2,277	0	3.6	.7	5.8	16.3	73.6
59	1	1,596	24.2	4.5	9.5	13.2	40.2	8.4
60	0	--	--	--	--	--	--	--
Total or average	3,042	1,993,254	3.6	10.4	4.4	12.0	26.5	43.1

Table 41.–Distribution of veneer grade and item by thickness, No. 1 Peeler grade blocks

Veneer item	Veneer grade						Total, all grades	Below grade veneer volume
	A	A patch	B	B patch	C	D		
	- - - - - - - - - - - - Percent - - - - - - - - - - - -						- - Square feet, 3/8-inch basis - -	
Full sheets:								
1/10-inch	5	22	11	29	22	11	28,072	19
1/8-inch	25	6	6	46	15	2	1,147	0
1/5-inch	--	--	--	--	--	--	0	0
Half sheets:								
1/10-inch	3	19	4	20	36	18	13,705	146
1/8-inch	14	9	16	32	28	1	995	23
1/5-inch	--	--	--	--	--	--	0	0
Random width:								
1/10-inch	3	4	8	12	57	16	26,633	1,087
1/8-inch	8	7	8	10	66	1	1,274	0
1/5-inch	--	--	--	--	--	--	0	0
							71,826	1,275

Table 42.–Distribution of veneer grade and item by thickness, No. 2 Peeler grade blocks

Veneer item	Veneer grade						Total, all grades	Below grade veneer volume
	A	A patch	B	B patch	C	D		
	- - - - - - - - - - - - Percent - - - - - - - - - - - -						- - Square feet, 3/8-inch basic - -	
Full sheets:								
1/10-inch	8	29	7	20	26	10	36,776	0
1/8-inch	15	27	33	15	8	2	1,418	0
1/5-inch	--	--	--	--	--	--	0	0
Half sheets:								
1/10-inch	7	19	5	22	30	17	18,848	127
1/8-inch	28	12	26	21	12	1	996	6
1/5-inch	--	--	--	--	--	--	0	0
Random width:								
1/10-inch	4	4	11	9	50	22	30,179	448
1/8-inch	12	8	9	7	59	5	2,806	3
1/5-inch	--	--	--	--	--	--	0	0
							91,023	584

Table 43.–Distribution of veneer grade and item by thickness, No. 3 Peeler grade blocks

Veneer item	Veneer grade						Total, all grades	Below grade veneer volume
	A	A patch	B	B patch	C	D		
	- - - - - - - - - - - - - Percent - - - - - - - - - - - -						- - Square feet, 3/8-inch basis - -	
Full sheets:								
1/10-inch	8	27	5	19	25	16	181,664	661
1/8-inch	9	18	15	37	17	4	17,733	0
1/5-inch	--	--	--	--	--	--	0	0
Half sheets:								
1/10-inch	7	14	5	14	32	28	96,514	3,018
1/8-inch	16	15	14	28	22	5	10,314	112
1/5-inch	0	0	0	0	93	7	1,062	0
Random width:								
1/10-inch	3	6	9	8	47	27	130,085	5,241
1/8-inch	9	3	10	9	59	10	20,335	50
1/5-inch	--	--	--	--	--	--	0	0
Total							457,707	9,082

Table 44.–Distribution of veneer grade and item by thickness, Special Peeler grade blocks

Veneer item	Veneer grade						Total, all grades	Below grade veneer volume
	A	A patch	B	B patch	C	D		
	- - - - - - - - - - - - Percent - - - - - - - - - - - -						- - Square feet, 3/8-inch basis - -	
Full sheets:								
1/10-inch	1	17	3	17	49	13	31,888	146
1/8-inch	0	5	1	23	61	10	5,378	0
1/5-inch	--	--	--	--	--	--	0	0
Half sheets:								
1/10-inch	2	8	2	17	48	23	12,844	206
1/8-inch	7	12	4	31	41	5	2,211	0
1/5-inch	0	0	0	0	100	0	1,059	0
Random width:								
1/10-inch	2	4	8	7	54	25	18,169	572
1/8-inch	3	2	4	12	64	15	4,601	15
1/5-inch	--	--	--	--	100	--	0	0
Total							76,150	939

Table 45.–Distribution of veneer grade and item by thickness, No. 2 Sawmill grade blocks

Veneer item	Veneer grade						Total, all grades	Below grade veneer volume
	A	A patch	B	B patch	C	D		
	- - - - - - - - - - - - Percent - - - - - - - - - - -						-- Square feet, 3/8-inch basis - -	
Full sheets:								
1/10-inch	2	13	3	14	15	53	356,347	5,163
1/8-inch	2	5	2	27	14	50	43,662	283
1/5-inch	---	---	--	---	---	--	0	0
Half sheets:								
1/10-inch	3	10	2	10	21	54	265,546	43,642
1/8-inch	4	7	6	26	17	40	23,152	564
1/5-inch	0	0	0	0	79	21	20,027	79
Random width:								
1/10-inch	2	4	5	6	36	47	228,839	36,547
1/8-inch	3	1	5	9	33	49	39,703	305
1/5-inch	---	---	---	---	---	---	0	0
Total							977,276	86,583

Table 46.–Distribution of veneer grade and item by thickness, No. 3 Sawmill grade blocks

Veneer item	Veneer grade						Total, all grades	Below grade veneer volume
	A	A patch	B	B patch	C	D		
	- - - - - - - - - - - - Percent - - - - - - - - - - -						- - Square feet, 3/8-inch basis - -	
Full sheets:								
1/10-inch	1	6	1	7	5	80	68,725	3,184
1/8-inch	0	0	0	14	3	83	13,472	486
1/5-inch	---	---	---	---	---	---	0	0
Half sheets:								
1/10-inch	3	7	2	6	6	76	107,922	67,320
1/8-inch	0	2	1	9	3	85	8,717	986
1/5-inch	0	0	0	0	48	52	10,565	156
Random width:								
1/10-inch	1	2	4	4	26	63	93,328	39,738
1/8-inch	1	1	1	3	12	82	16,543	816
1/5-inch	---	---	---	---	---	---	0	0
Total							319,272	112,686

Table 47.–Distribution of veneer grade and item by thickness, all blocks combined

Veneer item	Veneer grade						Total, all grades	Below grade veneer volume
	A	A patch	B	B patch	C	D		
	- - - - - - - - - - - - Percent - - - - - - - - - - -						-- Square feet, 3/8-inch basis - -	
Full sheets:								
1/10-inch	4	17	4	16	19	40	703,472	9,173
1/8-inch	4	7	5	27	16	41	82,810	769
1/5-inch	---	---	---	---	---	---	0	0
Half sheets:								
1/10-inch	4	11	3	11	21	50	515,379	114,459
1/8-inch	7	8	8	23	17	37	46,385	1,691
1/5-inch	0	0	0	0	70	30	32,713	235
Random width:								
1/10-inch	2	4	6	6	40	42	527,233	83,633
1/8-inch	5	2	5	8	38	42	85,262	1,189
1/5-inch	---	---	---	---	---	---	0	0
Total							1,993,254	211,149

APPENDIX C

SUMMARY OF FOREST SERVICE LOG GRADE SYSTEM FOR COAST DOUGLAS-FIR

Douglas-fir Peeler Log Grade Specifications - Summary
(All grades must be suitable for rotary cutting)

	No. 1	No. 2	No. 3	Special[1]
Production	Clear veneer	Clear veneer	Center & cross core	Same as No. 3
Surface clear requirement	100 percent	75 percent	None	None
Knots	None	None	Limit-size 1-1/2" (two per 8' block) Smaller-five per 8' block	Same as No. 3
Indications (knot)	None	Not over 25 percent of surface	Number-no limit Size-none over 1-1/2"	Same as No. 3
Diameter minimum	30"	30"	24"	18"
Maximum slope of grain[2]	1" per foot, 30-35" 1-1/2" per foot, 36-50" 2" per foot, 51-60" 2-1/2" per foot, 61"+	3" per foot, all logs	3" per foot, 24-35" 4" per foot, 36" and over	3" per foot, all logs
Grade defects: Firm stain	Limited	Limited	Permitted, no limit	Permitted, no limit
Deductible defects: Pitch rings	Not permitted	Limited	Limited	Limited
Butt rot	Permitted in 32' logs in all grades if one 8' block only is unsuitable for rotary cutting.			
White pocket (conk)	Not permitted	Not permitted	Permitted if not over 50 percent of gross	Same as No. 3
Cat faces, scars-shallow	Permitted	Permitted	Permitted	Permitted
Cat faces, deep (over one-half log length)	Not permitted	Not permitted	Not permitted	Not permitted
Grub wormholes	Up to 10 percent surface	Up to 10 percent surface	Up to 25 percent surface	Up to 25 percent surface
Pin wormholes	Not permitted	Not permitted	Permitted if wood is sound	Permitted if wood is sound
Knot clusters and burls	One permitted per 16' log	One permitted per 16' log	One permitted per 16' log	One permitted per 16' log
Sweep	Limited	Limited	Permitted	Permitted
Crook	Limited	Limited	Limited	Limited
Usual age-years	350+	300+	100+	100+
Usual position in tree	1st 32' log	1st & 2d 32' logs	Old growth: 3d & 4th 32' logs Red fir: 1st & 2d 32' logs 2d gr. 1st 32' log	Red fir: 1st, 2d, & 3d 32' logs 2d gr. 1st 32' log

[1] Logs meeting this specification are graded No. 2 Sawmill in the California Region.
[2] Slope of grain not considered in California Region.

Douglas-fir Sawmill Log Grade Specifications - Summary

	No. 1[3]	No. 2	No. 3
Production	C & Btr. lbr.	1. Constr. or Btr. 2. Shop or Btr.	Standard or Btr.
Surface clear requirement	100 percent	None	None

Knots permitted	None	1. Mostly live
		  Mostly 2-1/2" & less
		2. Larger permitted
		  but limited.
			No limit

Indications (knot)	None	Number-no limit Size - 2-1/2"	No limit
Diameter limit	30"	12"	6"
Maximum slope of grain[2]	1" per foot, 30-35" 1-1/2" per foot, 36-50" 2" per foot, 51-60" 2-1/2" per foot, 61" and over	2-1/2" per foot, 12-20" 3" per foot, 21-35" 4" per foot, 36-50" 5" per foot, 51" and over	None
Grade defect permitted: Firm stain	Limited	Permitted	Permitted - no limit
Deductible defects: White pocket (conk)	Limited	Permitted	Permitted if not over 66-2/3% of gross
Other	Any permitted provided the free portion meets the lumber production requirement and the log is 33-1/3% sound		
Usual age - years	350+	Any	Any
Usual position in tree	1st 16' log, sometimes 2d	Any	Top log or under 12"

[3] Few logs meet this grade specification; therefore, it is not used by the California Region nor by the Bureau of Land Management.

44

The mission of the PACIFIC NORTHWEST FOREST AND RANGE EXPERIMENT STATION is to provide the knowledge, technology, and alternatives for present and future protection, management, and use of forest, range, and related environments.

Within this overall mission, the Station conducts and stimulates research to facilitate and to accelerate progress toward the following goals:

1. Providing safe and efficient technology for inventory, protection, and use of resources.

2. Development and evaluation of alternative methods and levels of resource management.

3. Achievement of optimum sustained resource productivity consistent with maintaining a high quality forest environment.

The area of research encompasses Oregon, Washington, Alaska, and, in some cases, California, Hawaii, the Western States, and the Nation. Results of the research will be made available promptly. Project headquarters are at:

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